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**Supporting lifelong learning with Open Educational Resources (OER)
among diverse users:**

Motivations for and approaches to learning with different OER

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Thesis submitted to The Open University

for the title of Doctor of Philosophy

Centre for Research in Education and Educational Technology

Institute of Educational Technology

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Centre for Research in Education and Educational Technology

Institute of Educational Technology, The Open University

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Contents

List of Figures, Tables and Images	7
Abstract	8
1. Presentation of the thesis rationale, focus, objectives, questions and structure	10
1.1. Rationale, focus, objectives	10
1.2. Research questions	13
1.3. Research timelines and organisation of thesis	14
2. Introducing Open Educational Resources (OER) and lifelong learning: context and issues	17
2.1. OER: term, movement, significance, research.....	17
2.2. From Open and Distance Learning (ODL) to learning with different OER	22
2.3. Lifelong learning and OER vs. globalisation, mobility, demographic changes and ICT-and- knowledge-based economies	26
2.4. Lifelong learning and OER: initial questions posed	37
3. Motivation in learning in adult life: theories and studies used to understand the concept, frame the questions and select methods	40
3.1. What characterises (lifelong) learning among adults.....	40
3.2. Motivation in adult life and learning	47
3.2.1. Field vs. holistic-dynamic theories.....	48
3.2.2. Humanistic psychology approach	52
3.2.3. Lifelong and adult learning approaches	54
3.2.4. Behaviourist, cognitivist and situative angles	55
3.2.5. Situated learning, Distributed Intelligence, Socio-cultural Activity Theory and Constructivism ...	58
3.3. Education, learning and performance: researching and understanding how motivation or its lack can be manifested	64
3.4. Online factors in Learning 2.0 as potentially influencing learning and motivation.....	67
3.5. Motivation as understood in this thesis.....	72
3.6. Questions on motivation	77
4. Research design: philosophical traditions, methodology, methods	82
4.1. Interpretivism, nominalism, constructionism: understanding the individual in relation to others	83
4.2. Qualitative research characteristics: words, meaning, context, complexity	89
4.2.1. Context and complexity	91
4.3. OER research: educational, social sciences and HCI influences	93
4.4. OER research: trends and methods.....	96
4.5. On case study approach and selection of OER	99
4.6. Methods within case studies - semi-structured interview and virtual output collection - vs. research questions	105
4.7. Analysing data	117
4.8. Validity, reliability, significance and truth	118
4.9. Ethics, privacy, confidentiality	125
5. Case studies presented: five OER initiatives examined	129
5.1. Section overview	129

5.2.	Type and volume of data gathered from interviews, virtual output and observation	133
5.3.	Data collection, processing and analysis	139
5.4.	Case study: OpenLearn and the pilot study	148
5.4.1.	Introduction	148
5.4.1.1.	Focus, objectives and questions	148
5.4.1.2.	Description of the research site environment and the rationale for the selection of OpenLearn	150
5.4.1.3.	Ethics, privacy and confidentiality on OpenLearn	153
5.4.1.4.	Sampling participants for interviews and output	154
5.4.1.5.	Thematic output analysis	155
5.4.2.	Pilot study	156
5.4.2.1.	Purpose, focus, questions	156
5.4.2.2.	Theoretical Framework	157
5.4.2.3.	Two-phase approach	158
5.4.2.4.	Findings of the pilot: via sub-questions to answering the main question	161
5.4.2.5.	Pilot vs. main study: initial discussion	173
5.4.3.	Findings of the main study	176
5.4.3.1.	Sub-question 1: What are the goals (purposes) of and reasons for learning and interacting on OpenLearn?	177
5.4.3.2.	Sub-question 2: How does the online and offline context influence learning and socio-collaborative interactions on OpenLearn?	182
5.4.3.3.	Sub-question 3: What approaches to learning can be observed among different users of OpenLearn?	191
5.4.3.4.	Sub-question 4: What do users value most in learning with OpenLearn?	195
5.4.3.5.	Sub-question 5: What are users' main criticisms and problems on OpenLearn?	197
5.4.3.6.	Sub-question 6: What are the different users' needs and interests?	199
5.4.3.7.	Main question A: What motivates and influences learning with OpenLearn among different users?	201
5.4.3.8.	Main study compared to the pilot: more comments	204
5.4.3.9.	Main Question B: What role does OpenLearn play in supporting lifelong learning among different users?	208
5.4.4.	Reflections	212
5.5.	Case study: OpenStudy	214
5.5.1.	Introduction	214
5.5.1.1.	Focus, objectives and questions	214
5.5.1.2.	Description of the research site environment and the rationale for the selection of OpenStudy	216
5.5.1.3.	Methods of data collection, analysis, and participant recruitment	220
5.5.2.	Findings	224
5.5.2.1.	Sub-question 1: What are the main purposes of and reasons for interacting with other users (through discussion forums, chats, learning groups, awarding medals, pressing the 'good answer' button, profile creation, and observation and reflection on the output of others) on OpenStudy?	224
5.5.2.2.	Sub-question 2: How do users' learning landscapes (online and offline context and situation) influence their socio-collaborative learning on OpenStudy?	235
5.5.2.3.	Main Question A: What motivates and influences learning with OpenStudy among registered users?	248
5.5.2.4.	Main Question B: What role does OpenStudy play in supporting lifelong learning among diverse	

users?	252
5.5.3. Reflections.....	254
5.6. Case study: OpenSpires	258
5.6.1. Introduction.....	258
5.6.1.1. Focus, objectives and questions	258
5.6.1.2. Description of the research site environment and the rationale for the selection of OpenSpires	259
5.6.1.3. Participant selection, data collection and analysis, and ethics	263
5.6.2. Findings.....	267
5.6.2.1. Main Question A: What motivates and influences learning with OpenSpires among different users?	267
5.6.2.2. Main Question B: What role does OpenSpires play in supporting lifelong learning among different users?	276
5.6.3. Reflections.....	285
5.7. Case study: Middle East Technical University OpenCourseWare	289
5.7.1. Introduction.....	289
5.7.1.1. Focus, objectives and questions	289
5.7.1.2. Description of the research site environment and the rationale for the selection of METU OCW	290
5.7.1.3. Methods of gathering and analysing data and participant selection.....	294
5.7.2. Findings.....	296
5.7.2.1. Main question B: What role does METU OCW play in supporting lifelong learning among different users?	296
5.7.2.2. Main question A: What motivates and influences learning with METU OCW among different users?	304
5.7.3. Reflections.....	308
5.8. Case study: Wolne Lektury of the Modern Poland Foundation.....	310
5.8.1. Introduction.....	310
5.8.1.1. Focus, objectives and questions	310
5.8.1.2. Description of the research site environment of WL and the rationale for the selection of MPF OER	312
5.8.1.3. Data collection and participant recruitment: open online invitation to semi-structured interviews followed by convenience sampling for direct semi-structured observation	316
5.8.1.4. Data analysis methods and sources of evidence.....	320
5.8.2. Findings.....	321
5.8.2.1. Main question B: What role does WL provided by the MPF play in supporting lifelong learning among different users?	321
5.8.2.2. Main question A: What motivates and influences learning with Wolne Lektury among different users?	334
5.8.3. Reflections.....	339
6. Research questions: key findings, summaries, discussions and conclusions	344
6.1. Sub-questions: responses to all case studies in a nutshell	344
6.2. Main question A across case studies – key findings: on what motivates and influences learning and interactions with OER among different users	352
6.3. Main question B across case studies – key findings: on the role OER play in supporting lifelong learning among different users	373

7. Critical reflections on the robustness of research design, methodology and significance of findings: recommendations and contribution	401
7.1. Strengths and issues	401
7.2. Research recommendations	404
7.3. Expectations confirmed vs. greatest surprises	408
7.4. Advantages of triangulation	409
7.5. Representation, reliability, validity	411
7.6. Non-homogeneous case study approach	413
7.7. Frameworks and theories tested empirically and classifications developed	416
8. Thesis contribution: objectives met, the value of work done and further research	418
8.1. Objectives: research-based insight into OER in lifelong learning, exploration, innovation, uniqueness	418
8.2. Contribution to OLnet, knowledge production and OU mission	420
8.3. Key messages, the value of lifelong learning with OER and further research	439
9. Bibliography	444
10. Appendices	463
10.1. Participant Forms	463
10.2. Interview guide example	466
10.3. Interview transcript example extracts:	468

List of Figures, Tables and Images

1)	Figure 1. Influences on social research.....	89
2)	Table 1. Summary of data and participants included.....	137
3)	Table 1b. Key numbers, dates and figures on the OER examined.....	138
4)	Figure 2. Flow Model.....	143
5)	Figure 3. Display vs. Analysis.....	145
6)	Screenshot 1. OpenLearn LearningSpace Welcome Screen.....	151
7)	Screenshot 2. OpenLearn All Units Screen: Arts and Humanities Forum.....	152
8)	Table 2. Motivations for socio-collaborative learning on OpenLearn.....	172
9)	Table 3. Online and offline factors that encourage and impede interactions..... on OpenLearn.....	188-190
10)	Table 4. Motivations for socio-collaborative learning on OpenLearn II.....	205-206
11)	Figure 4. Life Roles.....	209
12)	Screenshot 3. OpenStudy.....	217
13)	Table 5. Factors that encourage or impede interactions...on OpenStudy ...	243-245
14)	Screenshot 4. OpenSpires.....	260
15)	Screenshot 5. METU OCW.....	291
16)	Screenshot 6. Wolne Lektury.....	313

Abstract

This thesis presents a study which aimed to understand: 1) What motivates and influences learning with Open Educational Resources (OER) among different users, and 2) What role OER play in supporting lifelong learning among different users. The activities of key international organisations promoting lifelong learning as significant in the context of globalisation, combined with the innovative character of OER as high-quality open learning resources, were the reasons for the focus.

The aim was to understand the function of OER through exploring motivational aspects, approaches to and contexts of individual learning among users of five different OER: OpenLearn, OpenSpires, OpenStudy, METU OpenCourseWare and Wolne Lektury. A case study approach allowed the focus on the uniqueness of specific OER. Semi-structured interviews and virtual output collection were triangulated as data gathering methods. Interviews were analysed using the Miles and Huberman's (1994) qualitative framework and output - using Preece et al.'s (2002) thematic analysis guidelines.

Results show OER as not only resources but learning environments supporting 'expansion of human learning' (COL, 2011:2) through being accessible free-of-charge, openly, without registrations, exams; providing various subjects, levels and formats suitable for users with different needs, disabilities, interests and resources. OER support wider access to and inclusion in learning, empowering individuals in directing their learning, especially

during transitions or 'critical periods' (Knowles, 1973).

OER users emerged as motivated by various online and offline factors related to supporting formal education or non-formal learning, and exchanging expertise or support. Even if linked to supporting formal goals, learning, participation and communication within OER are motivated intrinsically, by interest, knowledge, curiosity, enjoyment and appreciation of learning, subject or interactions.

OER help foster positive attitudes to learning and teaching as flexible and innovative possibilities of skills development and re-using OER are valued by learners, educators and organisations using OER to promote their missions.

1. Presentation of the thesis rationale, focus, objectives, questions and structure

‘Education has intrinsic value and is key to enabling individuals to realise their full potential and achieve personal fulfilment in all aspects of their lives’

(Council of the European Union, 2009:2)

1.1. Rationale, focus, objectives

The main reason for producing this doctoral thesis was a desire to rigorously research the social world and consider the strengths and flaws of different methodological approaches, in a way that had practical and instrumental value. Researching learning with OER constitutes an area of interest that permits individual work on possible methods and the opportunity to apply and test them through empirical study. At the same time the growing interest in OER provides a chance to discuss and share the insights gained with others involved in researching, creating and using OER. Engaging in an intellectual exercise was also believed to be of value in itself.

The reasons that determined the choice of research topic as motivations for and approaches to lifelong learning with different OER among diverse users were:

- the timely element of concluding the study ten years after the official implementation of the OER definition at the UNESCO 2002 conference, meaning that evaluations would be sought in the one-decade anniversary year, in which the 2012 Paris OER Declaration (UNESCO, 2012) was adopted, and that a relatively new area could be explored, in which an academic research contribution was needed more urgently than in an older, established one;
- the fact that despite their innovative character OER were produced for educational purposes so established learning theories and frameworks could be used as foundations in setting the context or analysing the use of OER;
- the wider context in which OER are produced and used nowadays - that of globalization, mobility and diversity of learners faced with constant demands of adapting to new situations, people and places in a rapidly changing world;
- belief in the importance of conducting research on what drives and influences learning among various individuals in the context(s) described above;
- the objective of making a contribution to the body of knowledge on how and why people learn with OER and how best to research these phenomena using various methods, both the established ones,

developed in offline contexts, and newer ones that are still evolving in online environments;

- the wish to contribute to the answering of the main research questions of the Open Learning Network (OLnet) collaborative group project (OLnet, 2010-2012) presented further on. As the PhD studentship applied for was co-funded by The William and Flora Hewlett Foundation (that funded the OLnet project) and The Open University (the OU, UK), upon being accepted as an OU student I also became a member of OLnet.

The focus of this research was on exploring and describing what motivates individuals in using and learning with OER, aiming to diversify the sample both in terms of the OER initiatives investigated and individuals. In order to understand different learning situations and paths the sample(s) varied in terms of users' subject interests, level of knowledge, gender, age and location.

The intention was to focus on the uniqueness of different individuals and their approaches to learning putting an emphasis on the value in the differences and thus helping to foster attitudes of appreciating diversity of approaches to learning and using OER.

The objective was to understand what role various OER play in supporting learning among different users based on the learning, contextual and motivational issues explored.

1.2. Research questions

The two main research questions posed in this thesis, called main question A and main question B, were:

- A) What motivates and influences learning with OER among different users?
- B) What role do OER play in supporting lifelong learning among different users?

How the generic questions and sub-questions evolved is described in detail throughout the thesis. The questions vary slightly between case studies as they were adapted to each OER aiming mainly for relevance, e.g. questions on using socio-collaborative tools were not posed in cases of OER that did not provide such tools.

The following six sub-questions were posed to help answer the main questions:

1. What are the reasons for and goals (purposes) of learning and interacting on OER?
2. How does the online and offline context influence learning and interacting on OER?
3. What approaches to learning can be observed among different users

of OER?

4. What do users value most in learning with OER?
5. What are the criticisms and problems that users encounter on OER?
6. What are the needs and interests of various users of OER?

1.3. Research timelines and organisation of thesis

The empirical research process started in spring 2010, following a stage of re-drafting of the initial proposal, exploring the core OER environment of OpenLearn, talking to other researchers in OLnet about their work and reading relevant literature, especially reports of key international organizations like UNESCO or OECD. This approach phase led to the drafting of the pilot study proposal. The pilot was conducted in spring 2010 in preparation for the mini-viva ending the probationary first year of the studies.

In autumn 2010 the main study phase started, with OpenLearn as the main case, involving interviewing users and on-going collection of virtual output lasting until spring 2012, with some stages focusing more intensely on obtaining access, some on scheduling and others on interviewing participants.

The interpretation of data, construction of meaning and development of the

argument of the thesis were on-going processes some of which commenced with the stage of preparing the proposal while applying for the studentship in summer 2009, re-drafting it to conduct the pilot study, designing the main study based on the findings of the pilot and progressing towards the main study and writing findings.

The thesis starts with this chapter 1. Chapter 2 introduces OER and lifelong learning theories, describing the contemporary context, key issues in the OER movement, and the main problems within adult and lifelong learning. Chapter 3 deals with motivation for learning in adult life outlining the main theories and studies chosen to help frame the questions and select research methods. A discussion on the philosophical traditions(s) upon which the epistemological and ontological approaches in this research were based follows in chapter 4 alongside the characteristics of qualitative research, case studies and methods of interviewing and gathering virtual output used in this study.

The case study section (chapter 5) starts with an overview in which what is common across case studies is described and the type and amount of data gathered summarized. Table 1 in section 5.2 summarizes the numbers of participants involved and virtual output collected in research in which the main source of data were 34 interviews.

OpenLearn is presented first as the case study containing a description of the pilot, the design of which was mirrored to a greater or lesser extent in all other OER case studies on: OpenStudy, OpenSpires, Middle East Technical University

OpenCourseWare (METU OCW) and Wolne Lektury (WL, in English: Free Obligatory (School) Readings) of the Modern Poland Foundation (MPF, in Polish: Fundacja Nowoczesna Polska (FNP)).

Responses to the sub-questions and two main research questions from all case studies are summarized in chapter 6 and discussed using relevant theories presented in the setting of the context and those used to help analyse data. The main strengths and flaws of the research are set out in chapter 7 along with conclusions drawn and recommendations for similar or further research. Remarks on accomplishing the original objectives, the contribution and key messages of the thesis, and suggestions for further research are discussed in the closing chapter 8.

2. Introducing Open Educational Resources (OER) and lifelong learning: context and issues

‘World leaders, meeting at the United Nations in 2000, set eight Millennium Development Goals (MDGs) that aim to transform the condition of humankind in the 21st century...Achieving the MDGs will require a massive expansion of human learning. Traditional methods of education and training cannot address the scope and scale of the task. Technology has already revolutionised other areas of human life; the world must now harness it to learning and teaching’ (COL, 2011:2)’.

2.1. OER: term, movement, significance, research

The significance of OER ‘for ensuring wide access to quality higher education in developing countries and full participation of universities in these countries in the rapidly evolving world higher education system’ (UNESCO, 2002) was first officially identified at The Forum on the Impact of Open Courseware for Higher Education in Developing Countries organised by UNESCO supported by The William and Flora Hewlett Foundation. Open Educational Resources were, in that context, understood simply as freely available university courses, officially defined as:

‘open provision of educational resources, enabled by information and communication technologies, for consultation, use and adaptation by a community of users for non-commercial purposes’ (UNESCO, 2002).

Since then the ways in which OER are defined have expanded beyond course material. According to a more recent definition by The William and Flora Hewlett Foundation, at the forefront of supporting open education, OER should be understood much more widely, as incorporating different educational materials available free-of-charge, including ‘courses, textbooks, streaming videos, exams, software, and any other materials or techniques supporting learning....[.]...tools and content’ (2010). OER initiatives should not only provide content but also tools and spaces that help learners pursue ‘deeper learning’ (The William and Flora Hewlett Foundation, 2010), i.e. learning aimed at fostering skills of communicating effectively, solving problems and working independently as well as collaboratively. An important characteristic of OER is the possibility of changing, editing or re-mixing them for educational purposes – OECD describes them in this sense as ‘accumulated digital assets that can be adjusted’ (OECD, 2007:2).

The concept of OER is not, however, about how OER are defined. It is important to consider what OER can and should facilitate, what they might help change on a wider educational and social scene, because of being based on the concept of free and open sharing:

‘OER are all about sharing...a culture of sharing resources and practices

will help facilitate change and innovation in education' (OER Commons, 2007).

What change is already happening and what change is still needed? In the face of forecasts on the diversity of the higher education student population in a few decades, according to which there will not only be more students but there will be learners of various ages, cultures and studying part-time (OECD, 2008; OECD, 2009), quantitative assessment is becoming less important than the ability to use one's talents to build networks while coping with changes and diversity both in face-to-face and Web-based contexts. International organisations advocate the promotion of learning opportunities for people at all life stages, fostering 'key competences' (European Communities, 2007) and 'creating a well-functioning "knowledge triangle" of education, research and innovation and helping all citizens to be better skilled [as] crucial for growth and jobs, as well as for equity and social inclusion' (EU, 2010:3).

OER can help facilitate change thanks to their capacity to provide free-of-charge educational materials that can be accessed online anywhere. This is significant in an era of great workforce mobility who can learn with OER anywhere in the world without interruptions to their education because of the physical limitations of face-to-face study context(s). Because OER can also function as spaces for fostering key skills and attitudes, e.g. within discussion forums provided, they can help facilitate change equally from the access hence social justice perspective and from the angle of lifelong learning and skills development in a contemporary globalised world.

The UNESCO's Second Global Forum on International Quality Assurance, Accreditation and the Recognition of Qualifications in Higher Education marks the beginning of a trend towards more socially-focused OER, having highlighted supporting learner communities as no less significant than providing quality resources and assessment and certification possibilities (UNESCO, 2004). The growing importance of developing skills through interaction was also observed in the focus of the 2009 VI International Seminar on Open Social Learning of the UNESCO Chair in e-Learning on 'theoretical foundations of collective knowledge production in social networks on the Internet' (FUOC, 2009).

Active promotion of free and open sharing of educational content became one of the key objectives of the OER Movement (D'Antoni & Savage, 2009) not only in developing economies as it was initially but also in developed countries. At the same time the domination of the global OER scene by initiatives provided by established English-speaking institutions is a debated issue:

'That cannot be a one-way street with developed countries responsible for producing OER and the less developed countries confined to consumption' ((D'Antoni & Savage, 2009:78).

Because of the great potential of open educational resources and practices to help in tackling various educational and social issues identified by key educational entities in the past decade it is important to conduct research into how OER are being used by different stakeholders.

The intention within this thesis was to focus on the role of OER for those who are learning rather than teaching, aiming to speak to different individuals at various life stages in different places in the world learning with different initiatives, some providing socio-collaborative tools and also those content-centred. The aspect of diversity and variety in learning was important as relating to how the notion of lifelong learning is understood by me as a researcher, more on which follows. As ‘...there exists little experience in how to effectively support communities of practice, which is of critical importance if OER initiatives want to grow based on user contributions’ (Geser, 2007:12), it is argued that it is particularly important to research OER environments facilitating community learning.

The OpenCourseWare Consortium (OCWC) is an organization with a key objective of ensuring ‘the long-term sustainability of OpenCourseWare projects by identifying ways to improve effectiveness and reduce cost’ (OCWC, 2006:1). Thus it is also argued that researching motivations of individual learners to use various OER and OCW contributes to gaining an understanding of various ways of improving that effectiveness.

As research into OER is a relatively new field various methodologies are being tested by researchers and there are ethical issues to address in relation to what is acceptable in researching online learning environments. The Open Learning Network (OLnet) based at The Open University (OU), UK, and Carnegie Mellon University and supported by The William and Flora Hewlett Foundation, had as one of its aims gathering and sharing evidence on best OER research practices.

The intention was for this thesis to be of value to OLnet experts and those using the expertise shared by OLnet. Through being innovative in topic focus, open in approach to the research problem, and traditional in terms of abiding to the rules of conducting doctoral research as an academically rigorous intellectual exercise, the aim was to contribute to building knowledge on best methods of researching OER, share ethical considerations, and help in answering the main research question of OLnet:

‘How can we build a robust evidence base to support and enhance the design, evaluation and use of OER?’ (OLnet, 2009:5)

2.2. From Open and Distance Learning (ODL) to learning with different OER

One of the main modes in which OER can, in line with the original definitions, be used is the open and distance learning mode. Since the core initiative researched for the purpose of developing this thesis – OpenLearn - was launched by and remains linked to a distance education university – The Open University, UK – a closer look at the educational context and history of ODL is desirable.

As Gaskell (2008) explains, major distance education institutions were founded because of strategically important political and social reasons. Established in 1969 ‘to provide opportunities to those unable to attend other higher education

institutions and to reform the higher education system itself' (Gaskell, 2008:81), the OU, UK, is no exception. Tait describes open universities as 'innovative...higher education institutions that have used distance in radical ways to improve openness' (2008:85), highlighting their role in championing social justice, progress, and providing standard educational opportunities yet challenging traditional models; and further stressing particularly the contribution of the British OU to developing materials specifically for ODL.

Distance education in Britain has its roots in correspondence teaching (Bailey et al., 1996), dating back to the University of London External Study system that originated in the British Empire and imposed no residency, gender or background restrictions so that not only those on missions but also indigenous people could study provided they could read and write in English (Tait, 2008). Bailey et al. notice ODL's potential to provide 'opportunities for those previously excluded by geographical isolation, disability, and work or caring responsibilities, or the cost of full-time study [therefore its particular suitability] to economies demanding a rapid expansion in the training of the workforce' (1996:129).

In the contemporary context of ODL and OER knowing the English language does not suffice any more, online access and digital literacy are pre-conditions to pursuing learning. In assessed ODL courses learning support is crucial because of various challenges that lie ahead of students such as 'decisions about starting study, feelings about becoming a student, motivations for learning, finding the time for learning, tackling course materials, planning..., tackling

assignments and dealing with failure' (Dzakiria, 2008:103). Based on a small qualitative study on enablers and barriers in distance learning Dzakiria ascertained that 'one of the greatest problems experienced...is a feeling of isolation, which makes the possibility of communicating between the learners and the instructors and with other learners difficult' (2008:106). Therefore Dzakiria argues that distance learners feel the need for some sort of human contact, with those who could guide and support them throughout the course, whether it be their tutor, institution or fellow students. Dzakiria also comments that the transition from traditional to distance learning may sometimes be difficult because of the lack of some key skills, e.g. in self-managing learning, which can be further complicated by age, educational and professional background differences.

The distance, flexibility and asynchronous mode of learning can therefore result in possibilities but also challenges and so learning in an ODL context can be a unique opportunity for those who might otherwise get no chance to learn but it is also demanding. Learning with OER can, too, be a unique opportunity for very similar reasons but might be even harder because it is not formally assessed or guided by tutors. It is therefore interesting to look into how especially self-directed learners overcome obstacles during learning, whether or not they join learning communities and what motivates them to interact within various OER. Exploring different OER is important as they are provided by organizations with different missions and traditions, e.g. OpenLearn of the OU, anchored in the ODL tradition and originally aiming to include those otherwise excluded and OpenSpires of the collegiate Oxford University which was originally only

accessible to an elite group.

Different OER initiatives offer their users different courses, tools and features that can be used in various ways, e.g. to organize one's learning or to connect to other learners. OpenLearn, which is the largest OER initiative in Europe, provides both course materials and tools for learning, being a 'hybrid of a repository, structured assets, a community, course-based tools, and personal learning tools' (McAndrew et al., 2009:3). Launching it in 2006 as an Open Content initiative had as its aim experimenting 'to explore how offering free content could be achieved...[and]...learn from producing and using open content' (McAndrew et al., 2009:1). The social justice ethos of the OU influenced OpenLearn.

Educational materials can be provided as OpenCourseWare, defined by the OCWC as 'a free and open digital publication of high quality educational materials, organized as courses' (OCWC, 2006:1). The first OpenCourseWare (OCW), launched in 1999 by the Massachusetts Institute of Technology (MIT) - MIT OCW (MIT, 2002-2012) - is still mainly a repository of courses and related learning materials although it is linked to OpenStudy which provides study groups for those who want to communicate with other learners.

Some institutions focus on producing podcasts and webcasts, e.g. The University of Oxford through the OpenSpires initiative. Detailed reasons for selecting specific initiatives are outlined in individual case studies in chapter 5.

2.3. Lifelong learning and OER vs. globalisation, mobility, demographic changes and ICT-and-knowledge-based economies

‘Lifelong learning and mobility provided by high quality education and training are essential to enable all individuals to acquire the skills that are relevant not only to the labour market, but also for social inclusion and active citizenship’ (EU, 2010:19).

As one of the main aims of this thesis was gaining insight into how OER support lifelong learning among different users, it is important to understand how (differently) lifelong learning can be understood and why OER might be an important element in it.

Lifelong learning is certainly not a new concept as it is commonly believed that Plato had advocated the importance of continuous efforts of each individual to understand the world and discover one’s place in it. It is, however, especially relevant in today’s context due to the processes that are taking place all around the globe and the fast pace in which they are happening. The process or phenomenon of the ageing society, in particular, combined with rapidly growing numbers of people who are migrating presents serious challenges for the education systems worldwide as the higher life expectancy and growing global population trends are expected to continue:

'by 2050 life expectancy is expected to exceed 76 years...the number of people in the world aged 60 or older will also rise from the current one-of-ten persons to be two-of-nine by 2050...[and]...by 2050 the world is expected to have 8.9 billion people, an increase of nearly half over the 2000 population' (United Nations, 1999:3-4).

Whatever the causes of these trends may be –scientific and medical progress or negative population growth rate, or both, the fact is that pensions will need to be generated. For example, between 1997 and 2006 the population in Poland decreased by approximately 170,000 directly because of a drop in the number of births recorded (CSO, 2010). The ageing population might need to work until later stages of their lives as might the growing global population (in order to generate pensions). It is therefore crucial to know how to learn and understand why it is important to learn lifelong, 'acquiring and updating all kinds of abilities, interests, knowledge and qualifications from pre-school years to post-retirement' (ESAE, 2007:23). According to the European Society of Association Executives (ESAE) document based on the European Commission's policy guidelines lifelong learning should promote 'the development of knowledge and competences that will enable each citizen to adapt to the knowledge-based society and actively participate in all spheres of social and economic life, taking more control of his or her future' (ESAE, 2007:23).

It is therefore important to equip the workforce not only with subject knowledge or specialist skills but to foster the attitudes necessary to learn and communicate effectively, and to provide spaces – both online and offline –

where learning and communicating could take place, allowing people to access resources, use tools, and connect to and observe other learners.

Access to online learning spaces seems of particular value both to individuals and organizations due to increased mobility among all. Individuals are migrating all over the world, in developed and developing economies, in conflict regions and where the situation is stable. They migrate for different reasons, sometimes encouraged by the ease of moving, as in the Schengen area (the European Union member states and Norway, Iceland and Switzerland) where 'free movement [is] a fundamental right for EU citizens' (European Union, 2010). Migration out of war-torn regions or areas struck by famine is more a necessity than an option, with the individuals concerned nevertheless having to deal with it, learning to adapt to new people, places and rules. Organizations move for different reasons, mainly linked to lower taxes, production or labour costs. Whatever the reasons for mobility, providing good conditions for learning and training is beneficial for individuals and organizations. The skills in demand on the labour market are linked to producing and using information, knowledge and technology. This is because throughout the last few decades a shift has taken place from industrial and agricultural economies to economies based on services, technology and information. In turn this has led to 'the growing centrality to social and economic development of equipment, techniques and know-how initially referred to as information technology (IT)' (Dutton, 2003:500) in what Dutton refers to as the 'Information Society'. In this context OER can function as spaces that can be used freely, openly and flexibly, and accessed from anywhere in the world provided there is infrastructure

(equipment and network access). Such spaces have a chance to become places where lifelong learning is pursued, where people gain knowledge and develop skills lifelong, potentially helping individuals and groups cope with constant changes and the demands put on them in the workplace and outside.

Computer equipment and online access are usually taken for granted in developed economies where particularly the Internet is a fundamental part of life for many, 'enabling instant communication and access to information all over the globe, opening up possibilities of learning more easily, remotely, and both independently and in collaboration with others' (Kozinska et al., 2010:1-2). According to the European Commission's report on Europe's digital competitiveness:

'ICT is an enabler of transformative potential and accelerates societal processes, such as globalisation or mobility. It impacts on organisational aspects, on network building, on people's capacity to manage information in a lifelong learning process, on sociability, on the contribution of users to the pool of knowledge and to the creation of content...[the main driver of social and economic change being] the spread of broadband communications. [...]...In 2009, the European digital economy continued to grow in size and scope, with 60% of the EU population using the internet on a regular basis. Broadband is available to 94% of the EU population, and is accessed by 56% of households and 83% of enterprises. The growth in the popularity of social networks and online videos, with 80 million people having uploaded self-created

content [in 2008], has changed the way people are entertained and informed, with major social and economic impacts' (European Commission, 2010:4).

Apart from having access to information and communication technologies (ICT) individuals today need digital competence, which involves using technologies and networks in a 'confident and critical [way] for work, leisure and communication....[and] basic skills in ICT: the use of computers to retrieve, access, store, produce, present and exchange information, and to communicate and participate in collaborative networks via the Internet' (EC, 2007:7). It is therefore not only the technical ability but understanding the opportunities that ICT can provide for education, work and leisure, combined with the ability to select and use resources responsibly.

Developing economies or even the less developed and rural regions in developed countries are at a disadvantage regarding access to equipment and network, as a result of which there are fewer opportunities for development of digital competences among people living in those areas. This results in a lower level of 'digital engagement' (Helsper, 2008), a problem referred to as the 'digital divide' (van Dijk & Hacker, 2003:315).

The potential of OER in relation to this problem consists in the fact that, as previously argued, 'digital engagement and related opportunities could be more effectively promoted with the right provision of OER [because OER promotion] would be closely linked to promoting digital access *as well as* access to

education, even if education is not pursued formally but as unstructured learning from an OER' (Kozinska et al., 2010:5). OER, in this sense, could be used to both support access to lifelong learning in general and contribute to developing some specific key competences necessary to pursue it.

Helping individuals learn and develop competences lifelong is important to achieve what Jan Figel, the EU Commissioner for Education, Training, Culture and Youth in the Barroso Commission (2004-2009), described as social cohesion in a rapidly changing world needed to prevent exclusion and marginalization, stating that:

‘the...threat of alienation implies a need to nurture democratic citizenship; it requires people to be informed and concerned about their society and active in it. The knowledge, skills and aptitudes that everyone needs must change as a result’ (EC, 2007:1).

Apart from literacy, numeracy, learning skills, entrepreneurship, cultural awareness or the previously mentioned digital competence, the European Communities (EC) report names social and civic competences as key in today's context. The competences are defined as ‘personal, interpersonal and intercultural competence [covering] all forms of behaviour that equip individuals to participate in an effective and constructive way in social and working life...in increasingly diverse societies’ (EC, 2007:9). This competence area is significant in the face of demographic changes and unprecedented mobility, and in particular OER that provide communication tools have the

potential to help people learn about other cultures and engage in constructive dialogues while learning.

Competency development among adults is seen as important not only because it can help them function well within the society but also because, as the 'Education and Training 2010 work programme' (EU, 2010) states, it can prepare them for 'active ageing' (EU, 2010:11), hence the importance of lifelong learning understood as 'learning "from cradle to grave" [as] a key factor for growth, jobs and social inclusion' (EC, 2010:12), in particular continuing learning lifelong:

'innovation and growth will be weak without a broad foundation of knowledge, skills and competences which promotes talent and creativity from an early age and is updated throughout adulthood' (EU, 2010:19).

Therefore one of the key priorities for education and training within the European Communities is increasing adult participation in education and training, especially drawing in lower skilled adults, as those better educated generally tend to participate in various learning activities more, 'high skilled adults being five times more likely to participate than the low-skilled' (EU, 2010:11). Encouraging adults who are disadvantaged or excluded, e.g. the unemployed, those with special education needs, the elderly and immigrants, is an important element of creating 'efficient adult learning systems' (EU, 2010:11), alongside providing second chances for those who had previously missed out on education. 'Providing second chances to update basic skills and to

offer learning opportunities at more advanced levels' (ESAE, 2007:23) aligns with the ODL ethos, too. OER can play another important role for those trying to return to education because they are both open and free course repositories and can be gateways to institutions providing formal education.

Because learning opportunities should be available to everybody 'helping *all* citizens to be better skilled' (EU, 2010:3) and special efforts should be made to encourage and help those excluded, e.g. because of disabilities or distance (ESAE, 2007:23), the social justice, widening access and inclusion agenda emerges as key in lifelong learning. This resembles the issues discussed in the ODL context, wherein the link to and importance of OER - as repositories available for ODL lifelong - are evident.

There is, therefore, value and potential recognized in lifelong learning, regardless of what aspects of it are believed to be the most important ones, whether it be its value for the society as a whole or its importance for each individual person's growth through non-formal or informal learning. Ensuring that learning lifelong is not only pursued but valued in all forms is the number one priority for action within lifelong learning policy of the European Communities:

'valuing learning is a key element in the creation of a culture of learning and for realising a European area of lifelong learning....[lifelong learning should be valued in all forms, as:] formal learning, such as a degree course followed at university; non-formal learning, such as vocational

skills acquired at the workplace; and informal learning, such as inter-generational learning, for example where parents learn to use ICT through their children, or learning how to play an instrument together with friends' (ESAE, 2007:23).

The remaining priorities named were: '(2) providing information, guidance and counselling, (3) investing time and money in learning, (4) bringing together learners and learning opportunities, (5) ensuring basic skills and (6) introducing innovative pedagogy' (ESAE, 2007:23). Emphasis was put on the need to develop some form(s) of assessing and recognizing non-formal learning and encourage learners to pursue 'individual learning pathways suitable to their needs and interests [where] opportunities [for learning] can truly be tailored to the needs of the learner' (ESAE, 2007:23).

Exploring various learning paths through learning about different approaches to learning was an important element of this thesis because it is argued that understanding the individual learner with their goals and motivations and describing a little bit of their learning world might shed light on the value of learning throughout life and what role OER might play in it. The potential of OER appears to be in their capacity to function as a link, a bridge between formal educational institutions and non-formal learning environments, allowing individuals to learn with quality materials and use the tools provided by a given organization without having to enrol formally while, at the same time, having that option. In supporting individual learning openness understood as 'facilitating access to learning opportunities by making them more visible,

introducing new provision and removing obstacles to access' (ESAE, 2007:23) matters.

Jarvis (2006) defines lifelong learning as:

'the combination of processes throughout a lifetime whereby the whole person – body (genetic, physical, and biological) and mind (knowledge, skills, attitudes, values, emotions, beliefs, and senses) – experiences social situations, the perceived content of which is then transformed cognitively, emotively or practically (or through any combination) and integrated into the individual person's biography resulting in a continually changing (or more experienced) person' (2006:1).

The individual is then at the core of this definition, not only gaining knowledge and skills but being involved in learning fully, with attitudes, feelings and values.

The National Institute of Adult Continuing Education (NIACE) for England and Wales takes a more organized-context, training-centred approach to promoting learning in adult life stressing that:

'[Lifelong learning] includes people of all ages learning in a variety of contexts – in educational institutions, at work, at home and through leisure activities. It focuses mainly on adults returning to organised learning rather than on the initial period of education or on incidental learning' (Schuller & Watson, 2009:2).

Because of what can be achieved through lifelong learning both for the individual and the society it is important to foster positive attitudes to learning, e.g. through creating 'a learning culture by giving learning a higher profile, both in terms of image and by providing incentives for the people most reticent to opt for learning' (ESAE, 2007:23).

OER can potentially contribute to creating a learning culture, becoming components within individuals' learning worlds, serving as online learning centres that are open and free. Their uniqueness consists in the fact that, as the OECD's 'Giving knowledge for free' report sums up:

'[OER projects] can expand access to learning for everyone, but most of all for non-traditional groups of students, and thus widen participation in higher education. They can be an efficient way of promoting lifelong learning, both for individuals and for government, and can bridge the gap between non-formal, informal and formal learning.' (OECD, 2007:1).

Lifelong learning relates to learning throughout life and 'should be a lifelong occupation' (Illeris, 2006:15) but in this thesis the emphasis is on adult life because older learners have not received as much attention as some other groups, especially the young learners in compulsory education. The type of individuals targeted in this piece of research with the aim of exploring the role of OER in their learning was someone who did not have to learn or continue to educate themselves but wanted to do so.

The aspect of valuing learning is interesting and worth thinking about. It is linked to how learning and its purposes are understood; whether it is perceived as a process of value in itself or always meant to result in a product such as testable knowledge or measurable skills.

The following sections deal with this issue in more detail as one of the aims of this thesis was to explore lifelong learning and gain insight into how learners themselves reflect on their learning with OER, given that previous research (Kozinska, 2009) and the literature reviewed suggest that there is intrinsic value in learning as a process, as an end in itself rather than just a means.

2.4. Lifelong learning and OER: initial questions posed

Based on the concepts and definitions discussed, the key elements in lifelong learning are:

- (1) its value for the individual learner's personal development,
- (2) its potential to help the society address demographic and economic changes,
- (3) its importance for ensuring equal access to high-quality learning opportunities throughout life for all individuals encouraging and helping those marginalized and excluded, aiming for social cohesion.

Evidently, there is twofold value in lifelong learning: for the individual and for

the society (which are interlinked and interdependent). The intention in this thesis was therefore to look at both aspects, investigating individual learners' situations and discussing the wider role of OER in the society, aiming to include in the research users diverse in terms of interests, life stages, locations and objectives.

Believing in the significance of lifelong learning and seeing the potential of OER to support it among learners in different life situations, one of the initial questions posed in this thesis (main question B) was:

B) What role do OER play in supporting lifelong learning among different users?

The intention was to investigate what benefits there were for users from learning with OER and also what problems they encountered during learning with OER. It was decided that what users valued and the problems they encountered would be best addressed in separate sub-questions. Furthermore, asking about what users valued most would help reflect the participants' voice more than my own interpretation. The following two questions were posed to understand how these benefits and problems encouraged or prevented users from using certain features, and what could be changed on the OER:

4. What do users value most in learning with OER?

5. What are the criticisms and problems that users encounter on OER?

The following sub-question, intended to be answered using data collected from a diverse sample of users, aimed at obtaining descriptions of various individual learning interests and needs:

6. What are the needs and interests of various users of OER?

The other main question of the thesis and supporting sub-questions are discussed in section 3.6.

3. Motivation in learning in adult life: theories and studies used to understand the concept, frame the questions and select methods

Based on the understanding of and priorities linked to lifelong learning discussed, it is argued that it is important to continue learning in adulthood after the period of compulsory education. This thesis deals with the use of OER for learning among learners who are adults, in particular those who do not have to but chose to learn with OER. Therefore it is important to understand what characterizes learning in adult life, how it might differ from learning in childhood, and what motivates it, motivation in learning 'generally defined as the psychological drive that leads to cognitive engagement and ultimately achievement' (Järvelä, Volet, Järvenoja, 2010:16).

3.1. What characterises (lifelong) learning among adults

One of the most prominent theorists of adult learning was Malcolm Knowles who developed the andragogy theory to talk about the voluntary learning of adults and to differentiate it from pedagogy which refers to educating children. Knowles occupied himself with the characteristics and processes of learning in adult life, conducting extensive reviews of the works of

pioneers of lifelong and adult learning. Examples include Eduard C. Lindeman, the author of 'The Meaning of Adult Education' (1926) or Eduard L. Thorndike who published 'Adult Learning' (1928 in Knowles, 1973), prominent social scientists and psychologists, e.g. Abraham Maslow and Carl R. Rogers, and educationalists such as Howard McClusky, Allen Tough or Cyril O. Houle. All of them were involved in either researching or discussing the nature of knowing, motivation and learning of humans in adult life. Their works were incorporated in Knowles' book 'The adult learner: A neglected species' (1973).

Using existing theories and experience drawn from studies conducted by others Knowles concluded there were four main assumptions that differentiate andragogy from pedagogy. Based on these learning in adult life is (uniquely) characterized by:

1. **Self-direction** – as an individual matures and becomes an adult their 'self-concept moves from one of total dependency (as in the reality of the infant) to one of increasing self-directedness' (Knowles, 1973:55). The notion of directing and being in charge of one's life and, what follows, one's learning, is linked to forming a unique identity of an adult, of perceiving oneself as an adult and being perceived like one by others. Therefore adults might experience tension or frustration when being treated like children, preferring more flexible and empowering forms and environments of learning.

2. **Experience used as a learning resource** - according to this assumption

‘as an individual matures he accumulates an expanding reservoir of experience that causes him to become an increasingly rich resource for learning, and at the same time provides him with a broadening base to which to relate new learning’ (Knowles, 1973:56). Experience(s), then, based on this understanding, influence how individuals approach problems and what strategies they select to solve them.

3. **Readiness to learn** understood as being prepared to develop to be able

to fulfil different tasks within the **social roles** that each adult has to perform, e.g. as a parent, worker, citizen or a leisure time user. Children, conversely, are ready to learn as a result of ‘biological development and academic pressure’ (Knowles, 1973:57). Thus the timing of learning is important and should ideally ‘coincide with the learners’ developmental tasks’ (Knowles, 1973:57). Most significant learning, Knowles argues happens during or in relation to so-called ‘**critical periods**’ in the lives of adults:

‘These periods are characteristically productive of experiences decisively important to the persons involved during which marked changes in social role and meaningful relationships may occur...the sensitive periods of readjustment leading up to and following these and similar events often give rise to strategic ‘choice points’ in life direction and often compel adults to make an ‘agonizing reappraisal’ of their circumstances...it is in such periods

that some of the most meaningful learning may occur'(1973:154).

4. **Problem-centred orientation to learning** – according to this assumption adults entered educational activities wanting to learn something that would help them cope with issues experienced in their lives, 'experiencing some inadequacy in coping with current life problems...[and with a] time perspective...of immediacy of application' (Knowles, 1973:58). Problem-based learning would increase their engagement and motivation more than activities focused on content-transfer because of individuals' expectations of being potentially able to apply solutions to their everyday situations.

Summing up, Knowles (1973) argues adults like to direct their learning, valuing autonomy, using their experiences as learning resources and preferring problem-centred learning that is closely related to the social roles and tasks they need to address daily, and that might help them deal with transitions during critical periods.

In relation to self-direction some theorists of adult learning speak of taking responsibility for one's learning and consciously selecting resources and spaces with which and in which learning is pursued. The notion of being in charge of what one learns and how means that adults learn what they find meaningful, useful or interesting, being, as Illeris (2006) describes it, 'selective' in their learning. In a contemporary context, with so many educational possibilities, vast amounts of information, communities, devices and locations to choose

from, directing one's learning means being continuously confronted with decisions on what to learn, how and where, with interest in a learning domain, situation or community influencing these decisions.

Because adults need to fulfil various tasks within their social roles, developing different skills is vital, Knowles argued, saying that 'the purpose of education is the development of competencies for performing the various roles required in human life' (1973:166). As the most common and significant roles and the competencies necessary to fulfil them Knowles selected (based on Table E-1. Competency Development for Life Roles, 1973:167):

- the learner – for which some of the key skills required are reading, writing, evaluating and inquiring,
- the self (with unique self-identity) – for which it is necessary to set goals, self-analyse and develop a set of values,
- the friend as someone who can listen, share, collaborate, give feedback and help,
- the citizen – a role in which the abilities to care for others, discuss problems and participate in community life are vital,
- the family member - a role for which it is crucial to know how to plan, save, love, take responsibility,
- the worker as a role demanding for instance planning, cooperating and delegating,
- the leisure-time user – as someone who knows resources, takes advantage of cultural opportunities, values art, is able to relax, play

and reflect.

Clearly many of the skills and competences assigned above to one role will also be needed to perform others. These are therefore just examples rather than rigid sets of skills assigned to specific roles.

The importance of life roles and situations was also recognized by Illeris who spoke of 'life projects' (2006:21) as what individuals want to pursue in their lives, what could be described as plans for various stages or dimensions of their lives, e.g. launching a family unit or finding a fulfilling and well-paid job. Life projects, Illeris argues, 'are embedded in the life history, present situation and possible future perspectives of the individual and are closely related to what we call identity' (2006:22). The need to perform different life roles, take responsibility, and make decisions in various situations is what distinguishes learning in adult life from learning in childhood even if, as Illeris (2006) states, the learning processes do not differ from the psychological perspective. An adult learner is thus someone who will set and re-set their goals, making conscious decisions and choices, adjusting them to their social roles, duties and lifestyle.

Because of the variety of roles and functions adults need to learn to fulfil simultaneously, some speak of the importance of learning 'life-wide', e.g. West (2006:41), meaning learning encompassing all areas and dimensions of life. Such learning should be understood holistically, involving the whole self, i.e. an individual not only in their learner role but all the other ones, e.g. family member, worker, friend or citizen. It should be understood as a process in

which we 'play and identify with different roles and so we develop secondary identities' (Jarvis, 2007:154); 'the process of becoming members of different groupings that are part of our life-world' (Jarvis, 2007:138).

Because of these demands of coping with different tasks within many different roles individuals are continuously confronted with having to assert or re-define their identities as today's context of diversity, mobility and simply uncertainty in the face of so many rapid changes provokes questions about one's identity, which is crucial for adults, West argues (2006).

Jarvis observed the importance of identity as something continuously developed:

'As members of a wide variety of communities of practice as we grow and develop...we learn to play roles within them, identify with them and develop a sense of belonging, so that we have multiple social identities depending on the roles we play and the groups to which we belong – these are, in a sense, secondary identities...as individuals move on from communities of practice, so their identity lapses and disappears. The greater their identification with that social identity, the greater the sense of meaning that it gives, the greater the trauma when it is lost' (2007:153).

West (2006) claimed that the significance of lifelong learning in adulthood consisted in its potential to help individuals deal with changes and related

needs of identity (re-)shaping, which could and should be pursued with other people, developing relationships and building networks in communities. The community aspect was viewed as essential by West who saw learners as connected socially, emotionally and psychologically and where factors such as gender, ethnic background or power status would all play a role. Learning in adult life is therefore social in the sense that it is 'rather more than a matter of cognitive processes inside people's heads but is stimulated and sustained by the social relationships in which we are embedded' (West, 2006:40).

The role of community and relationships to others had already been noticed by Lindeman, one of the first and leading theorists of adult learning in the 20th Century. Lindeman stressed that adults are mainly motivated to learn by their wish or need of change of their personal or professional situations, driven by power, knowledge, freedom, enjoyment and creativity, whereas learning happens primarily 'via the route of *situations*, not subjects' (1926:7). Lindeman also stressed the importance of communication and social interaction for learning, especially seeking association with groups in which learners can exchange ideas.

3.2. Motivation in adult life and learning

'...the urge for self-actualization is the driving force motivating all of man's
behaviour' (Knowles, 1973:24)

3.2.1. Field vs. holistic-dynamic theories

In summary, from the holistic-dynamic perspective motivation is understood as the result of interplay of external and internal forces with other people and success as key factors vs. needs and drives that humans desire to gratify, the highest of which is self-actualization.

Based on Knowles' (1973) assumptions, according to which there are characteristics that differentiate learning in adult life from learning in childhood, motivation for learning should be understood differently, too.

A family of theories reviewed by Knowles to understand what motivates learning among adults were field theories that 'propose that the total pattern or field of forces, stimuli, or events determine learning' (Knowles, 1973:23). This area was given attention at the literature review stage, leading on to developing questions of this thesis, because of the specificity of OER as environments where users are also exposed to stimuli and events online that might influence their learning and motivation.

According to the field theory developed by Lewin 'each individual [exists] in a life space in which many forces are operating' (Knowles, 1973:23). Based on Lewin Knowles explains that life spaces around individuals are the surrounding world, other people and the environment with its features 'to which the individual is reacting – material objects he encounters and manipulates, people

he meets, and his private thoughts, tensions, goals and fantasies' (Knowles, 1973:23). Therefore people act in the ways they do as a result of 'the interplay of these forces' (Knowles, 1973:23). Learning in this approach is understood as a cognitive change, linked either to external factors or internal motivation and needs. According to this theory other people are a key motivating force, success is a 'more potent motivating force than reward' (Knowles, 1973:23), and 'ego-involvement and level aspiration [are] forces affecting success'. An important variable affecting motivation would be valence, i.e. 'change in the relative attractiveness of one goal over another' (Knowles, 1973:23). Motivation understood from this perspective would be a mixture of 'forces' acting upon the individual both from within and from the outside world.

Abraham Maslow, on the other hand, one of the most prominent psychologists of the 20th Century who developed the holistic-dynamic theory of human motivation, concluded that the goal of all human behaviour, including learning, was self-actualization defined as 'the full use of talents, capacities, potentialities, etc.' (Maslow, 1970:150 in Knowles, 1973:9). As every individual strives for self-actualization, there are two sets of forces constantly acting upon him, drawing him in either direction, one being a pursuit of safety, 'defensiveness out of fear, tending to regress backward, hanging on to the past [while] the other set of forces impels him forward toward wholeness...and uniqueness of Self, toward full functioning of all his capacities...' (Maslow, 1972:44-45 in Knowles, 1973:9). Maslow understood human motivation in terms of needs and drives that people either gratified or felt deprived of, developing a hierarchy of basic human needs. At the bottom of what is commonly known as Maslow's pyramid of needs are

the physiological needs, e.g. hunger and sleep, which would also be most potent. These needs have to be satisfied for higher needs to emerge. The basic physiological needs are followed by the belongingness and love needs. At the next level are esteem needs, i.e.:

‘first, the desire for strength, for achievement, for adequacy, for mastery and competence, for confidence in the face of the world, and for independence and freedom...Second, we have what we may call the desire for reputation or prestige (defining it as respect or esteem from other people), status, dominance, recognition, attention, importance, or appreciation’ (Maslow, 1954:90).

At the top of the pyramid is the aforementioned need for self-actualization. In discussing self-actualization Maslow argued that ‘unless the individual is doing what he is fitted for...discontent and restlessness’ would develop even if all other basic needs had been satisfied, putting it simply:

‘A musician must make music, an artist must paint, a poet must write, if he is to be ultimately at peace with himself.’ (1954:91).

Referring to the actual realization of one’s potential Maslow explained it as ‘the desire to become more and more what one is, to become everything that one is capable of becoming’ (1954:92). This links to the notion of personal fulfilment that various policy documents discussed earlier in the thesis refer to. Maslow claimed that the mere ‘desires to know and to understand’ (1954:93) were very

strong needs that motivated humans. Maslow also spoke of humans being motivated by a desire to satisfy their aesthetic needs saying that 'in *some* individuals there is a truly basic aesthetic need', under aesthetic needs understanding for instance the need of beautiful surroundings, for symmetry or structure.

Maslow claimed that motivation was a complex phenomenon and humans were rarely driven by the need to satisfy just one need. Conversely, he claimed that 'any behaviour tends to be determined by several or all of the basic needs simultaneously rather than by only one of them' (1954:102). This was referred to as 'multimotivated behaviour' (1954:102) with some needs potentially remaining unconscious. In the sense of understanding motivation as a result of more than one factor Maslow's claims resembled the previously discussed Lewin's field theory understanding of motivation as (a result of) 'forces'.

Learning understood from Maslow's angle would be subject to multiple motivations, whereby some needs would be specific to a given culture and some would remain general for all contexts. Knowles used the conclusions of Maslow's to build his andragogical assumptions claiming that all learning would be motivated by the wish for self-actualization, so individuals would learn in order to realize their full potential.

3.2.2. Humanistic psychology approach

Learning is understood as motivated by a wish to understand towards personal actualization from within even if influenced by the external.

Carl Rogers, a proponent of the humanistic psychology approach, emphasised the importance of pervasive, all-embracing and all-inclusive involvement in learning, not just on the cognitive level, but personally, emotionally, making 'a difference in the behaviour, attitudes, perhaps even the personality of the learner...the whole person in both his feeling and cognitive aspects being *in* the learning event' (Rogers, 1969:5 in Knowles, 1973:9). Learning in adult life was self-initiated even if prompted or sparked by something external, Rogers argued, implying that motivation for the learning would come from within as 'the sense of discovery, of reaching out, of grasping and comprehending, comes from within' (Rogers 1969:5 in Knowles 1973:9).

The works of Rogers were also discussed by Schunk, Pintrich and Meece (2008) who concluded that Rogers believed that 'life represents an on-going process of personal growth or achieving wholeness' (Schunk et al., 2008:35), a process described as the actualizing tendency, coming from within, being understood as innate although influenced by the environment and other people... 'oriented toward personal growth, autonomy, and freedom from control by external forces' (Schunk et al., 2008:35 based on Rogers, 1963). The authors discussed Rogers' work in an educational context observing that learners perceive learning as meaningful 'according to whether it is meeting [their] needs or

leading to goals' (2008:36). Similarly to what Knowles (1973) observed based on Rogers (1969 in Knowles, 1973) people are naturally curious and willing to learn:

'Meaningful learning is perceived as relevant by students. They believe it will maintain or enhance their selves. The best learning occurs through active participation. Learning requires self-criticism and self-evaluation by learners and the belief that learning is important' (Schunk et al., 2008:37).

Although in the context of OER learning is not formally guided, OER are intended to be used not only for learning but re-used in teaching and some OER contain spaces that facilitate interaction with other learners. Therefore it is worth stressing how Schunk et al. (2008) used Rogers' understanding of the significance of the role of facilitators who could be teachers or other learners:

'Teachers do not impart learning but rather act as facilitators who establish a classroom climate oriented toward significant learning and help students clarify their purposes in learning. Facilitators also arrange resources for learning to occur. Facilitators are resources and make themselves available to students by sharing their feelings and thoughts' (Schunk et al., 2008:37).

3.2.3. Lifelong and adult learning approaches

Interest, enjoyment, appreciation, (a wish of) belonging, freedom, expansion and understanding motivate adults to learn based on the theories reviewed in this section.

Adults are, as Illeris (2006) put it, 'selective' in their learning, their interest in a specific subject, activity or learning environment prompting them to learn and driving that learning. Adults will not be highly motivated if forced to learn something they are not interested in. Illeris points out that adult learners have a special attitude towards educational institutions, branding it very 'ambivalent' (2006:19). It is interesting to see, therefore, how individuals use OER to learn, OER being freely available for flexible learning yet attached to educational institutions. In relation to motivation Illeris notices, interestingly, that there are many adult learners pursuing learning simply in order to not be marginalized at work rather than because they find the learning enjoyable or inspirational, being motivated by a wish to escape isolation and exclusion. Most 'voluntary' adult learners will, however, seek to engage in learning activities that are enjoyable, interesting and meaningful either because of the content of learning or the learning situation itself with possibilities to link with other learners.

Viewing lifelong learning in adulthood as a pursuit of freedom, justice, democracy and a right to develop is another interesting perspective. Albercini (2009) understands it as a strategy of pursuing freedom to develop and expand. Murphy and Fleming (2006) argue – basing their conclusions on the works of

Habermas (in Murphy & Fleming, 2006) - that 'freedom, community and democracy are the conditions necessary for us to understand our experience' (2006:54), the pursuit of emancipation and desire for participation being at the core of adult learning. Through this perspective learning emerges as motivated by a wish to belong, to be included and to participate in communities in order to ultimately understand one another, the world, and the society. Dialogue is viewed as a key tool to achieve that understanding and so 'the need to develop communicative competence becomes a task for adult education' (Murphy & Fleming, 2006:54).

3.2.4. Behaviourist, cognitivist and situative angles

Motivation is viewed differently depending on the understanding of learning. Greeno, Collins and Resnick (1996) discussed three key views on motivation in learning linked to three different theories of learning: behaviourist, in which learning is mainly driven by external factors, cognitive, where intrinsic motivation combined with stimuli sustains or impedes learning, and situative, in which motivation is understood as 'engaged participation' (Greeno et al., 1996:24).

Basing their discussion on the works of prominent behaviourist researchers, e.g. Skinner and Pavlov, Greeno et al. (1996) summed up that motivation for learning can be strengthened or weakened with rewards or punishments respectively as these can help change the behaviour of an individual 'in the way

that is needed for learning to occur' (Greeno et al., 1996:24). Aside from the importance of external stimuli motivation is linked to individual needs and objectives. Associations play an important role in getting involved in certain situations, too, insofar as participating in them might be associated with some biological outcomes, e.g. avoidance of pain. Greeno et al. (1996) claimed that in behaviourism, in line with the decision-making theory, the outcome (positive or negative) of an activity externally motivates a person's behaviour, so people make decisions depending on what they think might be most beneficial for them in the long term. A positive outcome, such as a high grade, good feedback or encouraging comments from others, can thus sustain or increase motivation to continue learning. Reinforcements play a key role in learning according to the connectionist perspective insofar as, depending on the feedback received after certain behaviours, learning happens through 'strengthening the connections that are active when a desired outcome occurs and weakening the connections that are active when an undesired outcome occurs' (Greeno et al., 1996:25).

Discussing the cognitive perspective based on the works of e.g. Bruner and Piaget, the authors described learning as understood as 'the acquisition of knowledge and understanding of information, concepts, principles and strategies' (Greeno et al., 1996:25). Learners' engagement means 'intrinsic interest in a domain of cognitive activity' (Greeno et al., 1996:25). Motivating learners is linked to fostering their natural tendencies to learn and understand concepts and ideas. Self-perception (how individuals view themselves) matters alongside challenge, fantasy and curiosity which, based on the framework

developed by Malone (1981 in Greeno et al., 1996) that Greeno et al. discuss, are the main elements of intrinsic motivation.

From the situative perspective learning is perceived as 'becoming more adept at participating in distributed cognitive systems' (Greeno et al., 1996:26), where knowledge is referred to as distributed between individuals and the world. Motivation is associated with involvement in social activities, it is understood as 'engaged participation'. Being engaged means maintaining relations with other members of the community with which one identifies. The notion of identity is crucial within this perspective: learners create, discover and re-shape their identities through participation and forming relationships with other learners within given communities. Community members often share common goals that they can pursue together, being motivated by a wish to participate and learn. The environment in which an individual learns and (observing and imitating) other people in it are crucial for identity formation, Greeno et al. (1996) argue based on Smith (1988 in Greeno et al., 1996). Based on Lave & Wenger's theory of community of practice 'motivation to learn the values and practices of the community...is tied up with establishing [people's] identities as community members' (Greeno et al., 1996:26). Whether or not one engages in learning or any other activity within a specific community depends on the extent to which one identifies with that community. The intensity of participation can differ and change, too, progressing from the peripheries initially to more central participation as one's identity as a member of a given community strengthens (based on Lave & Wenger, 1991 in Greeno et al., 1996). Greeno et al. claim that the level of engagement in learning within a community can be strengthened

with the help of 'educational innovations that have the goal of developing participation in social practices of inquiry and discourse' (Greeno et al., 1996:26). The potential of OER to serve as spaces in which social participation can be fostered with the right provision of socio-collaborative tools is discussed in chapter 6.

Greeno et al. (1996) speak of the notion of apprenticeship as underlying the situative learning theory, where learners understood as apprentices are taught, guided and mentored by masters. Social interactions with other members of communities in which the learner participates are crucial, however strong individual interest in a subject and activity are necessary to initiate the learning and participation, motivation being a combination of intrinsic and social factors.

3.2.5. Situated learning, Distributed Intelligence, Socio-cultural Activity Theory and Constructivism

Situated learning is discussed, among others, by Simons and Bolhuis (2006) who understand it as voluntary as opposed to compulsory, in which situations, context and tools are crucial because they are meant to help learners achieve their goals, often shared with others involved in learning situations and communities. The authors differentiated between communities of practice (CoPs) of which Lave and Wenger (1991) spoke, where the focus was on work, and communities of learning in which learning is the objective, stressing the

importance of cultural context as crucial to how people learn and think. Social learning here is understood as happening between people forming communities to help one another by discussing issues of interest, where the collective experience and interactions with others, which might result in shaping 'shared identities' (2006:18), are important. This differs from the classic social learning perspective of which Bandura (1977 in Ala-Mutka, 2010) spoke as modelling, i.e. observing and imitating other people's behaviour and attitudes. The theory of Simons and Bolhuis (2006) is relevant to OER as it relates to learning outside of formal contexts, where non-formality or informality can be important. Simons and Bolhuis (2006) were interested in exploring learning from the constructivist perspective arguing that angle understood learning as 'context-bound, tool-oriented, social and situation-specific...[and happening]...around the mutual accomplishment of tasks' (Simons and Bolhuis, 2006:13-14), thus something not limited to formal, traditional classroom-based activities.

Interacting with others is crucial for learning in Pea's (1993) distributed intelligence theory (DI), where collaboration and communication drive problem-solving.

Pea differentiates between the processes of cognition as conducted by individuals and intelligence which according to him is a dynamic phenomenon. The phenomenon is co-constructed via interactions between people in situations and environments understood as not merely the physical surroundings with their elements but also cultural environments, all of which Pea relates to as 'ubiquitous mediating structures' (1993:48). People use such

structures to achieve their objectives, often shared with others within a given environment. Intelligence in DI is constructed when people interact with technology, including 'social media...for supporting...peer collaboration' (1993:48), and other humans to reach their objectives and can be enhanced through 'guided participation' (1993:60). Learning is therefore a socially constructed process in which individual cognitive processes are essential but the environment and other people are inseparable elements in learning as the mind functions in interaction with the surrounding world, Pea argued. Participation was necessary for learning as it was within groups of peers or mentors that the intelligence needed to attain individual goals was distributed, resulting in learning happening 'through reciprocal teaching and cognitive apprenticeship' (1993:61). Pea's theory was included because of the wish to explore the role of participation in learning and motivation for socio-collaborative practices on OER.

Pea based his theory on the works of Vygotsky (1978) who developed the Socio-Cultural Activity Theory (SCAT) arguing that other/more knowledgeable individuals can help in learning. Based on this Pea argued that tasks and goals are better accomplished with the help of peers or mentors.

Pea used the term desires instead of motivation, claiming that desires determine what happens within systems of distributed intelligence, understanding DI as 'a heuristic framework for raising and addressing...questions about...mind...culture...design...[and] symbol systems and their impact on human thought' (Pea, 1993:48). Pea saw motivation as key in determining how

people behaved and organized their behaviours, and developed a taxonomy of desires (1993:55-56). The taxonomy was developed to describe and classify what drove people in the ways they interpreted the surrounding world, different situations and used resources and 'affordances', i.e. 'perceived and actual properties of a thing' (1993:51). Pea claimed that all desires could be classified into a task, mapping, circumstantial or habitual desire. If an individual knew what they wanted to achieve, having a specified goal and knowing the means to achieve it, this was a case of a task desire. Mapping desires meant that objectives could be met through any means, whereas circumstantial desires were the ones that emerged when the individual realized opportunities in a situation, when the circumstances contributed to the individual's realization of an opportunity. When activities and interpretations resulted from routine or habit they were driven by habitual desires.

Vygotsky (1978) claimed that the context of learning is critical because meaning is mediated in negotiation with the surrounding world and its static and dynamic elements: people, artefacts, landscape or even one's background and upbringing. Learning within SCAT can happen around a task or activity, using tools and interacting socially with other members of a relevant community, while language is key in construction of understanding for two reasons. It helps learners to communicate and it helps them to externalise thoughts hence connect them into ideas and concepts. Vygotsky (1978) used the term Zone of Proximal Development (ZPD) relating to what one is capable of doing individually versus what they could achieve with some guidance or support of a more skilled or knowledgeable person. The scientist worked mainly with

children, however SCAT has been adapted by others in researching adults, too, e.g. by Engeström who developed the Activity System model (1987) according to which individuals (subjects) use cultural, psychological or technical tools to achieve their objectives, acting within communities ruled by norms and division of labour.

In constructivism, as mentioned (see Simons and Bolhuis (2006)), the context of learning is important. It is because it is through interacting with its elements that learners co-construct meaning (Papert, 1993), using ideas, building categories (Bruner, 1990) and links that already exist in their minds while confronting them with new, incoming ones. It is a continuous cycle of building and re-building understanding, making learning a dynamic process.

In social constructivism discussion or interaction within a community of learners with similar goals is important to be able to link ideas and anchor problems in real-life situations. In cognitive constructivism the emphasis is on how individual learners construct meaning based on their interactions with the world (Piaget, 1961).

SCAT and constructivist theories are both learner-centred stressing that strong personal interest and motivation are crucial in learning as the responsibility for it rests with the learners not with teachers or tutors – these should merely assist in creating environments conducive to learning. Thus these theories seem relevant to learners within OER environments where learning is voluntary and not assessed, there are no tutors who might guide learners while they are

working through units or activities. Instead there might be discussion forums or glossary sections. This implies that support, if obtained, comes from other learners or (indirectly) designers of the site rather than formally assigned tutors.

3.3. Education, learning and performance: researching and understanding how motivation or its lack can be manifested

Schunk et al. who conducted extensive reviews of the main theories of and empirical studies on motivation redescribed motivation as ‘the process whereby goal-directed activity is instigated and sustained’ (2008:4), stressing that:

‘Motivation involves goals that provide impetus for and direction to action. Cognitive views of motivation are united in their emphasis on the importance of goals. Goals may not be well formulated and may change with experience, but the point is that individuals are conscious of something that they are trying to attain or avoid’ (Schunk et al., 2008:5).

This, interestingly, differs slightly from the classic psychological view of Maslow’s (1954) who claimed that much of what motivates human behaviour might remain unconscious. Schunk et al. (2008) however argue that – in relation to learning – individuals are aware of striving towards attaining a goal. Motivation is understood as a process requiring actions and activity. Therein consists the difficulty of measuring, assessing, evaluating and researching motivation – because it is not a product but rather something that needs to be understood from how and in what actions it manifests itself or not:

‘we do not observe motivation directly but rather we infer it from actions

(e.g. choice of tasks, effort, persistence) and verbalizations (e.g.: 'I really want to work on this')' (Schunk et al., 2008:4).

Activities in which motivation or a lack of it can be reflected can be both physical and mental. Physical activity might include effort or as Schunk et al. put it 'other overt actions...Mental activity includes such cognitive actions as planning, rehearsing, organizing, monitoring, making decisions, solving problems, and assessing progress. Most activities that students engage in are geared toward attaining their goals' (2008:5).

Conversely, a lack of organization, unwillingness to persist in solving problems or not wanting to evaluate one's progress would imply a low level of motivation. In particular the ways in which people respond to various obstacles encountered on the way to what they ultimately want to achieve are a good evidence of their motivation, Schunk et al. (2008) argue:

'much of what we know about motivation comes from determining how people respond to the difficulties, problems, failures, and setbacks they encounter as they pursue long-term goals' (2008:4).

High motivation is reflected in persistence, structure and organizing tasks, etc., e.g. 'students motivated to learn about a topic are apt to engage in activities they believe will help them learn, such as attend carefully to the instruction, mentally organize and rehearse the material to be learned, take notes to facilitate subsequent studying, check their level of understanding, and ask for help when

they do not understand the material. Collectively, these activities improve learning' (Schunk et al., 2008:5 based on Zimmerman, 2000). If and how an individual is motivated is reflected throughout the learning process:

'[how] motivated activity is instigated and sustained. Starting toward a goal is important and often difficult because it involves making a commitment and taking the first step. But motivational processes are critically important to sustain action...such motivational processes as expectations, attributions, emotions, and affects help people surmount difficulties and sustain motivation' (Schunk et al., 2008:5).

Schunk et al. (2008) agree that motivation is key in learning and influences the whole learning process: 'motivation can influence what, when, and how we learn' (Schunk et al., 2008:5 based on Schunk, 1995). It can not only affect what is being learnt but what was learnt in the past:

'Motivation can affect both new learning and the performance of previously learned skills, strategies, and behaviours' (Schunk et al., 2008:5).

The relation of motivation to learning and performance is reciprocal, meaning that motivation influences performance and learning while performance and learning influence motivation:

'when students attain learning goals, goal attainment conveys to them

that they possess the requisite capabilities for learning. These beliefs motivate them to set new challenging goals. Students who are motivated to learn often find that once they do they are intrinsically motivated to continue their learning' (Schunk et al., 2008:5).

Because motivation is a complex process, there are various approaches to researching it and different views on what methods are most suitable, e.g. direct observation of participants, participant interviews or analysis of documents and output. Schunk et al. explain:

'There are various indexes of motivation: choice of task, effort, persistence, and achievement. Motivation can be assessed through direct observations, ratings by others, and self-reports' (2008:41).

3.4. Online factors in Learning 2.0 as potentially influencing learning and motivation

As can be seen from the review of different theories of learning and motivation, regardless of the differences, whether motivation is viewed as mostly intrinsic - where learning itself motivates learning - or extrinsic - where learning is pursued as a means to achieve an end sustained by external stimuli, the context is always of influence. The context in this thesis is understood as the surrounding world at the time of learning, both in a wider sense such as the socio-political situation in a given region and in a more specific sense, e.g. as the

physical surroundings and tools at the disposal of the individual learner.

Learning 2.0 is understood as learning facilitated by the use of Web-driven social media applications and the Internet for building knowledge and exchanging information in today's learning context (Redecker et al., 2010). As learning with OER selected in this study is mainly designed to be pursued online, there are likely to be various factors online influencing what the individual learner can do, e.g. what tools they can use, and whether they can participate in socio-collaborative activities on the OER through the tools provided.

This section reviews theories dealing with factors influencing social interactions and participation online used in the pilot study which was conducted on OpenLearn which, as the OER of the OU, UK, runs on Virtual Learning Environment (VLE) Moodle as a Web-based repository of courses, tools and spaces. The availability of socio-collaborative tools on OpenLearn was one of the main reasons for selecting it as the space to conduct the pilot (section 5.4.2), especially in the light of 'the impact of social computing on learning' (Redecker et al., 2010:1).

A recently developed framework that looks in detail into the online factors influencing participation is the Reader-to-Leader-Framework by Preece and Shneiderman (2009). The authors developed it based on a comprehensive review of Human-Computer Interaction (HCI) literature establishing a number of core usability and sociability factors that can influence how users evolve in

their roles and related actions from readers, to contributors, then collaborators to end as leaders in their online actions.

The main sociability factors identified by the authors were: encouragement by people we like or respect, advertising, visibility, e.g. in media, clarity of norms and policies on a given website or forum, how inspiring the contributors are, feeling of belonging, privacy, support, recognition, trust, altruism, reputation, status and respect. As the main factors influencing online participation from the usability angle the authors identified content, layout, support available to users, navigation paths, universality of usability, i.e. whether it can be used by novices and experts, users of various languages, those with disabilities, etc.; interface allowances, e.g. whether or not users need to log in, if they can contribute frequently and if the contributions are visible, and tools available to control malicious users.

Makriyannis and De Liddo (2010), who conducted research on online communities, claim that users potentially participating in activities of these communities go through or stay within modes of participation such as:

- '1: to browse, gather and share content,
- 2: to give/ receive feedback and expertise,
- 3: to collaborate and jointly decide about actions,
- 4: to share control over the content and the community' (2010:4).

The researchers ascertained that 'if the community reciprocates positively to a

user and his/ her activities they move to more intense and involved modes of participation' (2010:8), suggesting that there is also a hidden layer of user interactions and 'when the dynamics of these element interactions change there is a shift in position or switching between modes for the user' (2010:8). The interactions are multidimensional, hence there are various factors motivating user participation at all times. The study is interesting because of the innovative methodological approach, too (see section 4.4 for trends in OER research). The authors observed the actions of users from 50 online communities daily for 30 days. That approach was taken to avoid influencing participant behaviour by asking questions, which would minimize 'human and technological intrusion in user activities' (Makriyannis & De Liddo, 2010:3).

Since a lot of visible interaction on OpenLearn takes place on forums, the Kreijns, Kirschner and Jochems (2003) paper reviewing research literature on social interaction was selected as it recognises the importance of dialogue and communication online. Even though the paper relates to computer-supported collaborative learning (CSCL) environments and was written in 2003, so before the emergence of user-generated Web, the forum interactions on OpenLearn as a VLE take place in an asynchronous way, like in CSCL environments, where the main communication form is written text.

Kreijns et al. (2003) argue that just because technology can facilitate and support social interaction and collaboration it should not be assumed that interactions will automatically happen. Affective factors play an important role in determining whether individuals participate in the activities of a group, i.e.

trust, respect, positive attitudes towards other members, and a feeling of belonging is needed to form a coherent community, just like in a face-to-face context.

The authors established that instead of focusing solely on cognitive factors, 'affiliation, impression formation, building social relationships' (2003:349) are all important to form a community, observing that designers should therefore take this into account and create sociable learning environments that will also let people communicate outside of task-related contexts. Such learning environments would let users form affective structures of communities through simply chatting, introducing themselves, leading casual spontaneous conversations that are necessary to facilitate and support users' participation and collaboration. Kreijns et al. (2003) observe that factors such as voice or clothes - due to the limitation of the CSCL interaction environment - will be excluded from influencing participation contrary to offline situations. In the context of OER this could be different because of the availability of audio-visual communication tools, e.g. video conferencing, within some OER.

Observation and reflection in online environments where users network, create profiles and read about the activities of others are also important. They 'can lead to users being aware of the activities and lives of other people, creating a sense of connection even if no personal interaction is involved' (Ala-Mutka, 2010:30). Ala-Mutka claims that collaboration in such contexts can be enhanced by the presence of 'socialisation and discussion facilities... [because they help] members to link up and negotiate the creation and building of a collaborative

product or resource... [and is more likely in groups] with joint purpose...organisation and practice' (Ala-Mutka, 2010:31-32). According to the researcher successful communities are often those who provide advisory facilities and support to their members, e.g. on how to use various tools, the difference between 'networked individuals and strongly tied community members... [consisting] in their commitment and identification with the collective group of people with a shared purpose' (Ala-Mutka, 2010:35).

3.5. Motivation as understood in this thesis

This section presents ideas, elements and methods assembled from across the theories and frameworks reviewed and the rationale for their adaptation in this work.

It is worth contemplating to what extent motivation depends on the learners themselves more than on the context of learning, or whether these are always interlinked. According to some (Gaskell, 2008) assessment is one of the strongest factors determining how engaged people will be in learning. If learning is not formally assessed, though, like on all OER studied in this thesis, and people still get involved in learning or interactions, it means they are motivated or influenced by other forces or stimuli: intrinsically, through forging their identities as members of groups, or online factors of usability and sociability that enhance or impede learning and participation.

As seen so far, most researchers and theorists agree that learning in adult life is different from learning in childhood mainly because adults (can) direct their learning, making conscious decisions and taking responsibility for the process. The environment with people and tools plays an important role in that learning and might influence one's learning even if motivation for it comes from within the individual. Therefore interactions with the environment and its human participants and the ways of using tools are very important in potentially influencing the learning. Strong interest and enjoyment are key indicators of intrinsic motivations, i.e. the fact that the learning process is perceived as of value in itself, too, rather than being only meaningful if linked to producing measurable results in the form of new, more, or improved knowledge or skills.

Motivation can be understood differently. It can be understood as a force that initiates and directs behaviour and which is strongly influenced by and can be controlled via conditioning or reinforcement in the behaviourist school. Motivation can also be understood as a need that originates from within the individual and is linked to cognitive processes that are influenced by stimuli but sustained by curiosity and individual interest. Finally, motivation can be understood as engagement, a wish, need and ability to be involved in communities in which one builds relationships with others and develops one's identity. Regardless of how one understands motivation, the context will, to a greater or lesser extent, always influence the learning and the learner. The context can relate to one's immediate learning context, e.g. the physical landscape and tools available or the wider life situation in which an individual happens to be with linked duties and possibilities. Aside from the discussed issues linked to behaviour, values or intellectual growth, there are various

external factors from within the offline and online environment in which an OER user functions that will influence motivation, or, to use the terminology of Lewin, there will be various forces driving learning in each learner's 'life space' (Knowles, 1973 based on Lewin).

The results and insights from the MSc study (Kozinska, 2009) conducted prior to commencing this doctoral research were also used in this thesis because of participants' and contextual similarities. Within that work motivation is understood dynamically as a combination of individual goals, intrinsic drives and needs and external stimuli, environment, and resources, at least some of which are likely to keep changing rather than remain the same depending on individual situations at given times. These conclusions reflected the postulates of adult and lifelong learning theories on the desires for self-fulfilment, getting to know the world and developing (Lindeman, 1926; Knowles, 1973) and the importance of situations, interactions with other people and tools in one's surrounding world underlined within the theories of Socio-Cultural Activity (Vygotsky, 1978), Distributed Intelligence (Pea, 1993), situated learning (Simons and Bolhuis, 2006), and social and cognitive constructivism (Papert, 1993; Bruner, 1990; Piaget, 1961).

The notion of motivation is a complex one and in this project is understood as a dynamic system at the centre of which lies the learner with his or her internal, intrinsic motivation, needs and desires but always functioning in interaction and relation to their environment in which other people and relationships forged with them play a key role. Motivations are influenced by individual

lifestyles and resources available, all of which determine the intensity and frequency of learning, and prompt learners to make choices as to what, where, when and how they learn. This understanding was built based on the theories chosen for the review and is a combination of viewing motivation as driven by internal and external factors.

Motivation can be intrinsic and from within the individual but strongly influenced by the surrounding world, based on Rogers (1969 in Knowles, 1973). Motivation consists of various needs, drives, forces, and also of what is possible with the resources available, hence the role of affordances, i.e. 'perceived and actual properties of a thing' (Pea, 1993:51). Motivation can be understood as desires, hence Pea's taxonomy of desires is also used in the interpretation of findings, depending on if and how these relate to Pea's DI theory. Learning is approached as potentially 'multimotivated', based on Maslow (1954:102), and potentially influenced by different cultural factors.

It is interesting to think about whether motivation is socially influenced but still constructed by the individual or socially co-constructed, a discussion in which Järvelä et al. (2010) engage. In constructivism meaning is co-constructed, negotiated through interaction with the environment and its participants, hence it is interesting to discuss the findings on motivation for learning with OER in the light of these theories.

Pea talks of certain environments (potentially) functioning as 'ubiquitous mediating structures' (1993:48), or places where 'through reciprocal teaching

and cognitive apprenticeship' (1993:61) guided participation and learning can take place. Whether OER can function as such spaces is discussed within the main question on the role of OER in supporting lifelong learning. As the goal of all human behaviour, including learning, was claimed by some to be self-actualization, fulfilment and realization of one's potential (Maslow, 1970 in Knowles, 1973), the main question on the role of OER in supporting learning should also refer to whether or not OER might provide spaces that enhance such learning and help users in striving for self-actualization.

In relation to the qualitative research strategy favoured in this thesis, the approach to researching motivation is also qualitative: what is done and in what way is more important than how often or for how long it is pursued, although these are also taken into account.

Results and frameworks generated in the pilot are used in the main study, e.g. the classification of motivational categories into expertise-related and support-related ones (see sections 5.4.3 and 5.5.2), and were discussed in detail in a peer-reviewed published paper describing the pilot study (Kozinska et al., 2011). Expertise-related are actions motivated by a wish or need to gain or share knowledge, skill or specialist feedback, whereas support-related actions are those out of desire to belong or a wish to escape isolation (which reflects the claim of Illeris (2006) on adults engaging in learning in order to not be marginalized or excluded – meaning that learning is motivated not only by what is desired and wanted but also by what is feared and unwanted). Mixed actions can arise out of enjoyment, be linked to valuing learning through interactions, or

be pursued because of altruism or reciprocity.

Various theories and frameworks reviewed were used to help analyse data, e.g. the RTL framework (Preece & Shneiderman, 2009) or the life roles table (Knowles, 1973), while remaining open to what the data might convey. Cognitive-intrinsic motivational issues are also taken into account, in particular trying to understand the actions linked to planning and organizing one's learning which Schunk et al. (2008) specified as important or self-perception and curiosity which Greeno et al. (1996) based on Malone (1981 in Greeno et al., 1996) concluded as key in intrinsic motivation.

3.6. Questions on motivation

Particular theories were selected for this thesis because of their suitability to the context of the study, its objectives and the participants' profile.

The core of the theoretical framework in this study consists of adult learning and lifelong learning theories as the target participant group were intended to be adults and OER chosen were designed for adult learners learning not necessarily in connection with formal education but also non-formally. The choice of lifelong and adult learning theories was therefore justified both by the context and the participants' profile.

The importance of self-direction and readiness to learn to deal with daily tasks within one's social roles (Knowles, 1973), being selective in learning (Illeris,

2006), and setting goals in order to learn (Schunk et al., 2008) led me to conclude that it was important to formulate a sub-question on the reasons for, goals and purposes of using OER by individual learners. The aim of posing this question was to focus on the individual and establish both what the 'forces' from within them were that prompted them to learn and reasons related perhaps to their external circumstances or the properties of a specific OER that made them select and continue learning with a given initiative. The sub-question was formulated as:

1. What are the reasons for and goals (purposes) of learning and interacting on OER?

This question would be answered through analysing the various reasons, goals and purposes established, organizing them, e.g. into lists, and/or grouping into categories depending on what might emerge, and trying to spot links in summarizing the results.

As an understanding was adapted in this thesis that individuals are influenced by the context regardless of how (strongly) motivated they might be from within, it was important to investigate that role of the context, both online and offline, and how it influenced the learning and participation, whereas the section on participation would only be relevant for OER with socio-collaborative tools. The question was formulated as:

2. How does the online and offline context influence learning and interacting on OER?

This question (sub-question 2) would aim to investigate the situations of participants, so their social roles of which importance Knowles (1973) spoke, or what Illeris (2006) branded as life projects, although these could also include reasons and goals for learning hence there could be overlaps with the answer to sub-question 1.

Another important issue that would be paid attention to within this question might be the so-called critical periods or any transitions or changes in the learner's life of which importance Knowles (1973) spoke. This is also where issues related to one's duties and lifestyle would be discussed.

The concept of identity which was discussed and branded as key in lifelong learning of adults would be addressed in this question. The idea of learning pursued with OER in relation to re-shaping one's identity would also be discussed in the wider question (discussion) on the role that OER might play in supporting lifelong learning among various users.

In relation to online factors the frameworks discussed in the Factors 2.0 section are used, as they had already been used successfully in the pilot. These mainly related to factors that might encourage or impede interactions, but would also be used while trying to understand what might encourage learning independently where relevant, e.g. availability of online support on a given OER that might encourage interactions with others but also using tools and working through units independently.

This question would be answered by organizing the various online and offline factors that either impede or encourage learning or interactions into tables and possibly discussing the links, patterns and conclusions in prose. As Schunk et al. (2008) recognized, difficulties, or rather the way in which an individual handles them, can tell us a lot about their motivation so investigating factors constituting some sort of barriers to learning and interactions was important, too.

As motivation is a complex process that can be evaluated through actions such as e.g. planning of one's learning, organizing it, setting goals, persevering and evaluating (Schunk et al., 2008), it was important to pose a question to learn more about the processes of, actions within and approaches to learning among different OER users, establishing the 'what' and the 'how' of the learning. The question was initially formulated as:

How do users learn with OER? [and, aiming for more precision, later re-formulated to sub-question 3 as] **3. What approaches to learning can be observed among different users of OER?**

Within this question individual learning paths - of which importance the lifelong learning documents reviewed spoke - would be explored, aiming to capture and present elements of the learning worlds of different users, discussing both their learning strategies and approaches, and how they used tools from within a given OER to realize them.

The first two sub-questions were intended to focus on what comes from within

the individual and what the outside influences were in motivating learning and interactions, linking to what for instance Rogers (1969 in Knowles, 1973) said on learning as self-initiated but possibly sparked by something external.

The three questions were intended to help answer one of the two main questions of this thesis, main question A, which had as its objective identifying what 'instigates and sustains' (Schunk et al., 2008:5) learning with OER, and was formulated as:

A) What motivates and influences learning with OER among different users?

The answers generated to each sub-question with individual examples would be merged to generate the answer to this question, aiming to make links and paint a bigger picture.

Some factors, e.g. learner interests, might emerge across answers to different questions, e.g. in what prompts users to learn with various OER (sub-question 1 on goals and reasons within the main question on motivations) or what the general needs and interests among various users of OER are (sub-question 6 within the other main question set).

4. Research design: philosophical traditions, methodology, methods

The purpose of this chapter is to discuss the rationale for the design of this study and explain how it was conducted to address the research problem and fulfil the objectives of this thesis.

The main issues that determined what research strategy was chosen and how the research plan (design) was constructed are epistemology and ontology. Therefore a discussion on various beliefs in how knowledge is discovered or constructed and, subsequently, how (differently) scientific research can and should be conducted, opens this chapter. This is followed by a discussion of the nature of qualitative and educational research, and on this study as a piece of research on OER used within online learning environments, hence mixed social sciences and human-computer interaction (HCI) research. Current work in the field of OER research, especially of OLnet, is discussed, followed by a justification of the choice of methods and case study approach in this thesis, closing with reliability, validity and ethical issues.

4.1. Interpretivism, nominalism, constructionism: understanding the individual in relation to others

A key belief that motivated the work on this thesis is that lifelong learning is meaningful for the society primarily insofar as it enables and encourages individuals to strive towards self-actualization, whether learning independently or within communities. The intention was thus to develop the argument of this thesis based on the accounts of individual participants, in line with interpretivist epistemology.

Within social sciences epistemology – generally referred to as the philosophy of knowledge - relates to ‘what is regarded as appropriate knowledge about the social world [where] one of the most crucial aspects is the question of whether or not a natural science model of the research process is suitable for the study of the social world’ (Bryman, 2004:3).

Interpretivism as an epistemological approach favours building one’s understanding of the world based on the accounts of those who participate in it rather than neutral observations so:

‘in contrast to the adoption of a natural scientific model in quantitative research through an examination of the interpretation of that world by its participants’ (Bryman, 2004:266).

Researchers conducting their studies in the spirit of interpretivism aim mainly to understand (Stake, 1995). This is where the main difference between the interpretivist and positivist approaches in the social sciences lies – the former striving to grasp the subjective meaning of the social world of research participants and the latter advocated by researchers believing in some objective reality of the world and human behaviour independent of human participants that can be discovered and explained. Stake (1995) stresses empathy as important in trying to understand research participants, empathy based on ‘understanding...human action rather than...the forces that are deemed to act on it’ (Bryman, 2004:13). Emphatic understanding, so putting oneself in the position of the other and trying to see the world through their eyes, appears to exclude completely objective judgement. This is linked to the fact that the researcher researches other humans as opposed to the natural world and this is where the fundamental difference between social and natural scientific research lies: in the object(s) of enquiry.

Social research aims to investigate the world of humans and ‘social action’ (Bryman, 2004:13), as opposed to nature, animals and objects that are studied in natural scientific research. Because the objects of enquiry are so fundamentally different, approaches to researching and understanding the two worlds should differ:

‘the study of the social world...requires a different logic of research procedure, one that reflects the distinctiveness of humans as against the natural order’ (Bryman, 2004:13).

One reason for taking the interpretivist approach in this thesis was agreeing that it is more suitable to researching humans than the positivist one.

Philosophically interpretivism is linked to hermeneutics understood as a tradition, with origins in theology, that in social sciences includes theory and methods of interpreting human action (Bryman, 2004) or as 'an approach to the analysis of texts that stresses how prior understanding and prejudices shape the interpretive process' (Denzin and Lincoln, 2005:27). Thus interpretation is never completely objective and value-free but subjective and influenced by what humans bring in with them into the research process – attitudes, beliefs, values – as beings that feel, reflect and reminisce, always functioning in relation to others.

Ontology is about whether people construct their own knowledge about the world or whether that knowledge is there to be found (out), discovered. Ontological issues, 'ones to do with whether the social world is regarded as something external to social actors or as something that people are in the process of fashioning' (Bryman, 2004:3), are important in determining how research should be approached.

Defining ontology as 'assumptions about the world' Corbin and Strauss (2008) state that 'every methodology rests on the nature of knowledge and knowing' (2008:1) concluding that researchers should make methodological choices based on their own ontological beliefs. Believing that knowledge about the social world is rather constructed than discovered, while humans function in

relation to others, e.g. interact through socio-collaborative OER tools, I favoured an approach referred to as constructivist (Corbin in Corbin and Strauss, 2008). The main assumptions of the constructivist ontology are, as Corbin explains, that:

‘...concepts and theories are *constructed* by researchers out of stories that are constructed by research participants who are trying to explain and make sense out of their experiences and/ or lives, both to the researcher and themselves. Out of these multiple constructions analysts construct something that they call knowledge’ (Corbin in Corbin and Strauss, 2008, 9-10).

Bryman noticed ‘constructionism was ‘an ontological position...often also referred to as constructivism...’ (2004:538). Knowledge production is understood as continuous processes of re-construction of ideas, concepts and explanations. Corbin and Strauss argue that social reality is continuously influenced by individuals who ‘create and change the world around them through action/ interaction’ (2008:6) so knowledge about the social world cannot simply be discovered in a state that will remain static because the reality is changing:

‘the world is very complex. There are no simple explanations for things. Rather, events are the result of multiple factors coming together and interacting in complex and often unanticipated ways’ (2008:8).

As humans are at the core of social sciences research, nominalist ontology, in line with which the individual is at the centre of each enquiry process, was also considered.

As a result, a mixed nominalist-constructivist ontological approach was taken in this thesis because of the intention to investigate individuals interacting with their environment in which other participants, key 'actors', to use Bryman's term (2004:3), are important influences while learning is perceived as constructed dynamically.

Constructivism views knowledge as a dynamic construct in which social objects and categories are 'indeterminate' (Bryman, 2004:17) since knowledge construction can never be fully accomplished in a final static state. Researchers examine chunks of reality in motion, capturing moments that never stay the same but are constantly and continuously changing. Whatever knowledge is built is thus deemed to be only a partial and never a/ the complete and final version of reality, thus never the ultimate truth but always a (partial?) version of it, one of many possible versions, 'a specific version of social reality, rather than one that can be regarded as definite' (Bryman, 2004:17).

This piece of enquiry was intended to be inductive, i.e. progressing from a detailed analysis onto building a general theory as that would reveal itself in participants' interpretations of their social realities and my own construction of understanding of these as a researcher.

Agreeing that it is good practice for researchers to state one's hopes and biases, think about how they might influence the research, and remain sensitive to how one's attitudes might change during the research or as a result of it, issues were reflected on continuously throughout the research. That reflection process and awareness of any (potential) shifts in researcher's opinions or values is described as 'reflexivity' (Bryman, 2004:22).

This study was intended to be an open enquiry seeking to answer research questions rather than deductive research aiming to confirm a hypothesis. My belief in the significance of OER, the universal value of lifelong learning, and the potential of OER to support learning throughout life is stated to make these transparent while intending to remain objective and open to what the data might reveal. It was important to design the study so as to remain faithful to the preferred epistemological and ontological traditions while striving for reliability and validity, more on which follows.

To sum up the discussed epistemology, ontology, theory and values, all of which should influence the design of social research, figure 1 was constructed as an illustration, adding practical considerations, i.e. feasibility, time and resources, based on Bryman's (2004) approach.



Figure 1. Influences on social research (based on Figure 1.3 'Influences on social research' in Bryman (2004:21))

4.2. Qualitative research characteristics: words, meaning, context, complexity

'If we look at the primary goal of empirical inquiry, it is the pursuit of truth. Quantitative and qualitative research, however, pursue truth in different ways' (Shank and Brown, 2007:58).

Qualitative research strategies are believed by interpretivists to be more suitable (than quantitative) to researching the social worlds of humans, qualitative research implying 'an approach to social research in which quantitative data are not collected or generated...[and more]...concerned with words rather than numbers' (Bryman, 2004:266). The core difference between

a quantitative approach and a qualitative approach consists in how the truth and meaning are perceived and sought, the former being a positivist tradition where 'meaning exists as a thing in the world...[discovered by researchers who can discover meanings just as they can discover facts]' (Shank and Brown, 2007:58). Shank and Brown claim that 'most qualitative researchers...acknowledge that there are indeed facts of nature that go beyond what people might think or wish them to be...[but]...the whole point of [qualitative] research is to examine the processes and types of meanings that we might find or make in the world' (2007:59-60). In qualitative research, the authors imply, there is no one single meaning because meanings are constructed, not discovered, differently by different individuals, being of different quality and value to different researchers. Qualitative research is about understanding, inter-relations, viewpoints, and subjective version(s) of reality rather than an objectively discoverable and measurable, quantifiable truth(s). When researching people, Shank and Brown continue:

'we are looking at the roles that personal and interpersonal meanings play in shaping lived experience, and we are striving to understand those experiences on their own terms' (2007:60).

In this thesis it was important to capture meanings constructed by individuals (i.e. research participants) whose perspectives can change over time. Thus qualitative research strategy, otherwise methodology, i.e. 'a way of thinking about and studying social phenomena' (Corbin and Strauss, 2008:1), was chosen.

4.2.1. Context and complexity

An important characteristic of qualitative research is the significance attached to the role of context and belief that phenomena should be researched ideally in their 'holistic natural settings' (Shank and Brown, 2007:60) rather than environments created artificially for research, e.g. in controlled experiments.

The intention in this study was to conduct research in natural settings as far as that was possible. However, in trying to define the boundaries of these settings their complexities revealed themselves as OER are web-based but users can be physically located anywhere in the world. The context of this study, then, is dispersed within both online and offline realities. As it would not be feasible to travel to each participant to observe them in their natural physical setting, the common denominator of the setting, i.e. the online based OER, served as the natural part of the context to research. The OER were used (more statically) to introduce each initiative, tools available, and even the mission of the producing organization, and describe the setting, and (more dynamically) to gather material produced by participants (where that was possible).

The challenge of researching OER consists in the fact that they could be perceived as settings of research, as environments in which users learn and interact with others, and as (parts of) the phenomenon researched because on a broader level, as learning environments, they fulfil the role of learning tools

themselves. Because OER can directly and indirectly influence users on different levels it might be difficult to determine what elements of each OER should be paid particular attention to in setting, describing and researching the (context of the) OER.

In this study there is considerable emphasis on describing the context and researching its various influences on the processes of and motivations for learning. One of the reasons for this strong focus on context, including its participants, was previous research (Kozinska, 2009) in which the findings revealed that the context strongly influenced how and why learning and interactions happen or not. That study also adopted a qualitative research strategy to investigate individuals using a network to enhance their professional learning and personal development in adult life.

Qualitative and quantitative research traditions differ in their approaches to complexity of research settings. The scientific method linked to the positivist approach in social sciences assumes that:

‘the simplest phenomenon...is most likely true...Simplicity...[being] the key to...understanding order in the empirical world’ (Shank and Brown, 2007:60).

In qualitative research, conversely, complexity is valued as potentially helping to learn new and interesting things by researchers who ‘are much more interested in tackling things within their natural contexts, and seeing how the

various aspects and facets of that context come together to bring about the worldviews under observation' (Shank and Brown, 2007:60).

Sub-question 2 on online and offline contextual influences on learning and interactions was constructed with the aim of thoroughly examining the role of context in using OER, aside from the two main research questions on motivations and role of OER, responses to which were expected to contain discussion on the roles of OER in various contexts. The context is key in this thesis and understanding what might constitute context and how it influences learning with various OER was crucial in constructing this piece of research.

4.3. OER research: educational, social sciences and HCI influences

'Change is at the heart of all educational research'

(Shank and Brown, 2007:5)

As the role of OER is researched in the context of using them for learning, the intention was for this to be a piece of educational research, with the non-formal educational aspect of OER at its heart. Trying to address the question of how education is understood, Shank and Brown (2007) reflect on (whether it is)

'the thing that goes on in classrooms every day. Teachers teach, and

students learn. Now and then, students take tests to make sure that they have learnt what they have been taught. At the end of the year, students are either held back, they advance, or they graduate' Shank and Brown (2007:2).

Education certainly is associated with some institutionalized learning and teaching, most commonly with schooling, and most educational research is, indeed, conducted in schools, as Shank and Brown (2007) notice. As a 'basic human process' (Shank (2006) in Shank and Brown (2007:2)) education is happening all the time, the researchers claim. Within education definitions of learning differ and so do theories of and approaches to researching learning (see chapter 3).

Shank and Brown (2007) talk of the 'mosaic' of education, e.g. informal, continuing or incidental, implying something dynamic, consisting of different elements that can change. OER with their various uses possibilities could be viewed as elements in the mosaic of education today, potentially important because of the possibilities of open and flexible use in different settings. With learning so complex and understood differently, educational research is multidisciplinary, with influences mainly from social sciences and psychology but also other fields, e.g. arts or natural sciences. Educational research occupies itself with 'examining the knowledge base of education [through] the application of some generally accepted procedures' (Hittleman and Simon, 2002:2 in Shank and Brown, 2007:3). Shank and Brown (2007) specify what they view as the main traits of educational research: being public, systematic,

purposeful and useful. What this means is that the procedures applied in the process of research should be public, i.e. 'data...collected and analysed openly, and results...shared with all interested parties' (Shank and Brown, 2007:3), with the exception of participant identities, especially minors, as these should be protected for privacy and safety reasons.

A key goal of this study was to gather empirical data to answer the research questions. The questions were formulated and this thesis produced to help understand and explore the value of OER used in lifelong learning through gaining insight into what motivates and influences various individuals to use OER. The aims were therefore to understand, gain insight, explore, and describe, accounting for a 'situation to explore', to use a term of Shank and Brown (2007:3).

As OER are relatively new, e.g. OpenLearn has been around since 2006, the purpose of this research was also to advance our understanding of learning with OER, which would accomplish the fourth aim of educational research that according to Shank and Brown is usefulness, i.e. advancing 'our practice or understanding of education in some way' (2007:3).

When others are researching what we are researching it means there is common interest in a problem that needs to be understood better, perhaps because something is new, e.g. OER, hence yet unexplored or because some elements in its environment have changed. 'Research, like most human activities, is social in nature. Therefore, researchers tend to move together in

certain directions. When a good idea is accepted and practiced by the field as a whole, then research and knowledge both grow at an accelerated rate' (Shank and Brown, 2007:5). Additionally it is important to identify specific issues to be addressed as a result of which our research can contribute something new and of value.

4.4. OER research: trends and methods

In the evolving field of OER research methods and tools based on asking questions and observing are most popular.

The use of Cohere as a web-based tool to enhance qualitative analysis of data gathered through observation of online peer learning is discussed by De Liddo and Alevizou (2010) who were interested in addressing the question of how best to 'capture observations relating to learning experiences which unfold in a virtual space and are mediated by specific technologies' (2010:1).

Cohere has been described a 'collaborative sense-making tool[s] for capturing and visualizing the relationship between collaborative and peer learning' (2010:6). De Liddo and Alevizou argue for Cohere's potential to enhance data collection, focusing on enhancing 'qualitative data analysis (QDA) methodologies like thematic analysis, grounded theory, linguistic analysis...[used]...to explore multivariable social phenomena' (2010:2). The potential lies in using Cohere to physically track, filter, annotate and organize

data, visually order it, and enhance the logical process of observation and analysis, especially of group interactions. In turn, this can help to ‘make sense of complex issues by exploring, filtering, debating and better understanding [of] other people’s thoughts’ (De Liddo, 2010 in De Liddo and Alevizou, 2010:1).

The way in which De Liddo and Alevizou show Cohere can be used to organize and analyse data is based on the principles of coding and memoing, the same as those on which the Miles and Huberman (1994) qualitative data analysis framework rests. Thus, as learning environments and research processes can become more sophisticated through technology, the principles of understanding of human thinking and acting remain the same.

Cloudworks is another interesting environment showcased in the paper ‘Using Cloudworks to Support OER Activities’ as a space where researchers can network, discuss current OER research, and exchange ideas on topics and methods around activities in so-called ‘Cloudscapes and Clouds ([which are] aggregations of ideas/ resources/ discussions)’ (Alevizou, Conole, Culver, Galley, 2010:6). Looking at ‘dominant themes in discussions and [online] activities...[and]...patterns of interaction and behaviour’ (Alevizou et al., 2010:5) among Cloudworks users, the authors highlighted the role of Cloudworks as an academic networking tool that could be used differently to understand the themes and patterns of research activities within a field, e.g. OER.

Research conducted to produce the OpenLearn Research Report 2006-2008

(McAndrew et al., 2009) is an example of a large mixed-method study into the use of OER. Sources of evidence used included analytics data (e.g. OpenLearn automatically generated Moodle logs, other Open University sites data, and Google Analytics), survey reports and interviews. Analytics and logged data was used to understand 'the patterns of access to the [OpenLearn] site' (McAndrew et al., 2009:35), while interviews conducted with a smaller number of users allowed for a more in-depth understanding of individual learning approaches and motivations than surveys. The stage of exploring what types of learners use OpenLearn also incorporated online questionnaires mainly because of the potential to reach large numbers of users and allowing the researchers to gain an overview of the demographics.

Triangulating methods, combining sources of evidence, can be observed among those involved in current OER research and discussions. As well put by Conole, '[drawing on] range of sources of data (desk research, interviews, focus groups, workshop evaluations, observations, web statistics, etc.) [is meant to] help develop a rich picture of users' practices and perspectives in relation to the use of technology to support their learning and teaching activities...[and]...[collect] rich set[s] of data to capture the experiences and patterns of behaviour occurring on the site' (Conole, 2010:4).

McAndrew, Scanlon and Clow (2010), all from OLnet, discuss the term 'Researcher 2.0' describing those conducting research on OER using new methods or applying traditional ones innovatively. The authors observe the importance of attitudes among researchers, e.g. to open access to data, noting

that ‘openness of [higher] education implies new approaches to how we research [and]...educate’ (2010:5) and showcasing the work of OLnet:

‘In OLnet we are addressing the challenges of building a research base for evidence of OER’s value and sharing of ideas to move from providing OER to using them for participatory learning. To do this, we are carrying out targeted research projects, building capacity through fellowships, and identifying and sharing results...Examples of investigations...include:

- Reviewing the way in which social sites are organized by observing the trajectories of those who use the sites,
- Interviewing innovators in open access to see how those who perceive themselves as educators and those who don’t are helping users support their learning’ (McAndrew, Scanlon, Clow 2010:5).

A key challenge in researching OER named by the authors is the fact that results may become obsolete before publishing because of the evolving nature of OER (see section 7.1).

4.5. On case study approach and selection of OER

The main reason for opting for a case study approach was the wish to gain insight into the phenomenon of OER initiatives supporting the learning of its users in all its complexity. As a methodological approach, the case study is believed to grant ‘a rich and insightful look at an individual or a group’ (Shank

and Brown, 2007:65). Rather than examining dozens of different OER and many learners who use them, the wish was to pick a few initiatives and spend more time researching in detail what was happening among a smaller number of those learning with it, bearing in mind that:

‘The key to a case study is the fact that it is an in-depth look. Researchers take their time to observe and probe, and often gather information from a variety of sources’ (Shank and Brown, 2007:65).

The depth rather than breadth or width was important – wanting to explore in detail in order to understand the value of OER in lifelong learning rather than explain in order to produce plenty of evidence for OER and lifelong learning related policy-making.

According to Yin ‘the distinctive need for case studies arises out of the desire to understand complex social phenomena’ (Yin, 2003:2) whereas Stake states that ‘a case study is expected to catch the complexity of a single case...coming to understand its activity within important circumstances’ (Stake, 1995:xi). These were exactly the intentions of mine as a researcher: to investigate the complexities of a few single cases in their unique contexts (single cases being phenomena of individuals and groups learning with a specific OER), with their authentic features, remaining sensitive to their unique character rather than aiming at producing statistically sound generalizations.

Case studies were chosen also because of the advantage they grant to mix

various methods and combine tools of enquiry within them, depending on what one aims to achieve and on the nature of the case study. Stake differentiates between intrinsic and instrumental case studies, the former conducted to find out about a specific single case for its own sake and when we have 'intrinsic interest in the case' (Stake, 1995:4), and the latter used to learn more about other cases. Sometimes several instrumental case studies are conducted as a collective case study, i.e. 'designed with more concern for representation' (Stake, 1995:5). Depending on whether case studies conducted are intrinsic or instrumental, the researchers look either for 'happenings' or 'causes' (Stake, 1995:36) respectively. Stake observes that 'the more intrinsic interest in the case, the more we will restrain our curiosities and special interests and the more we will try to discern and pursue issues critical to it' (1995:4).

The aim of this research study was on enquiring about specificity and exploring the unique character of each OER. Generalization was not an objective but representation was, indeed, strived for insofar as the OER were chosen based on a number of criteria, most importantly diversity. The intention was to select what could be described as the best possible representative of a certain type of OER. for instance OpenLearn was chosen as a repository of high-quality university-level course materials with freely available social spaces and learning tools, so as a potentially 'ideal' representative of an ODL-university-provided repository with socio-collaborative tools.

The OER chosen in the thesis could be regarded as typical of their category because of the tools and features they provide that might be identical or similar

to those available on other OER from within a given category, e.g. an OCW. Each OER is, however, attached to a different organization and that is where the main uniqueness was expected to come from. More precisely it would be expected to be linked to the learners 'attached' to a given organization or its OER, from the users learning with OER in a given way or in various ways because that is how these OER would be brought to life, through being learnt with, because of being used by different individuals and groups for learning.

Altogether the five OER initiatives chosen to research are more different than similar, it could thus be said that the OER initiatives sample was diversified. Nevertheless the case studies were more intrinsic than instrumental, if, in terms of Stake's (1995) distinction, conducting mixed intrinsic-instrumental case studies is possible at all. If the objective of intrinsic case studies is particularization and specificity of a single case and the aim of instrumental case studies – generalization onto other cases from the studying of a specific case, mixing the two might appear impossible because of their objectives being mutually exclusive. However, the peculiarities of some single cases, so what is unique and different about them, might help us look differently at other cases, spotting what is unique and different about other cases, based perhaps on the differences between them rather than the (lack of) similarities. Or, conversely, knowing what is unique and different about single cases might help us focus more attention on what is typical and generalizable in other cases. In this sense a case study that is meant to be intrinsic might help us understand something about other cases, hence also fulfil – albeit indirectly – the same purpose an instrumental study might.

The diversity aspect was important not only across OER but within each OER – I aimed to diversify the sample as much as possible in relation to individual participants of each case study, i.e. aiming to recruit from among different ages, locations, occupations, etc. Details on how the sampling was conducted in relation to OER sites selection and participants are outlined in each case study section separately.

Such a strategy could be described as balancing ‘the sample to achieve variety’ (Stake, 1995:6), wanting to learn as much as possible, based on the recommendations according to which the main criterion in selecting what case studies we should do is ‘to maximize what we can learn’ (Stake, 1995:4). As researchers we should therefore consider what choices might help in gaining best understanding in relation to our research goals, Stake (1995) asserts, saying that the choices should show us the best path(s) to understanding that will either result in confirming our expectations or in changing our views and attitudes, something which – in relation to this study – is discussed in chapter 7.

Various factors should play a role in making the decision on sampling, including practical issues of access, time and feasibility, e.g. how easy or difficult it might be to access a certain setting with potential participants or informants, so those who might help us obtain information about the subject(s) of our enquiry or actors, i.e. people studied (Stake, 1995:4). In relation to the context and access Stake advised researchers to be driven by what can ‘aid or restrict our learning’ (1995:4). In this piece of research the wish was to learn much but also for the knowledge to be of quality, the maximization of knowledge consisting in

achieving qualitative rather than quantitative value. As Stake notices 'even for collective case studies, selection by sampling of attributes should not be the highest priority. Balance and variety are important; opportunity to learn is of primary importance' (1995:6).

Therefore we should consider our research objectives and practical issues while deciding what design might help us to learn most about a given case, whether it might be uniqueness or typicality. According to Stake (1995) it is uniqueness that is important in case studies as 'the real business of case study is particularization, not generalization. We take a particular case and come to know it well, not primarily as to how it is different from others but what it is, what it does. There is emphasis on uniqueness, and that implies knowledge of others that the case is different from, but the first emphasis is on understanding the case itself' (Stake, 1995:8). Generally representation is not what the goal of case studies is and 'the representation of a small sample is difficult to defend' (Stake, 1995:5) as case studies are usually employed to find out more about a particular case and not to study others:

'It may be useful to try to select cases which are typical or representative of other cases, but a sample of one or a sample of just a few is unlikely to be a strong representation of others...case study research is not sampling research. We do not study a case primarily to understand other cases... [even if] sometimes a 'typical' case works well but often an unusual case helps illustrate matters we overlook in typical cases' (Stake, 1995:4).

It might be possible then to learn about the general and typical from the specific and peculiar.

Yin groups case studies (which he describes simply as ‘one of several ways of doing social science research’ (Yin, 2003:1)) into explanatory and exploratory, descriptive, the first being ‘the preferred strategy when “how” or “why” questions are being posed, when the investigator has little control over events, and when the focus is on a contemporary phenomenon within some real-life context’ (Yin, 2003:1). Case studies conducted for the purpose of this thesis are rather exploratory, descriptive although the phenomenon of OER in today’s learning context is significant, too. Differentiating between the phenomenon and its context can sometimes be difficult as the boundaries can be blurry – this is actually when a case study approach is recommended.

4.6. Methods within case studies - semi-structured interview and virtual output collection - vs. research questions

Believing in the constructivist ontology based on which only partial versions of reality in construction can ever be captured through research, the choice of methods for this thesis was dictated by the wish to capture these realities of participants’ worlds so as to achieve two aims:

- Understand these realities as a researcher,

- Be able to, subsequently, describe them to the readers of the thesis in such a way that they, too, would understand.

The use of participant quotes helps in understanding these realities therefore the interview as a method that facilitated the gathering of quotes was chosen. The interview was concluded to be a method facilitating focus on the individual and that made it possible – thanks to the semi-structured format – to ask pre-set questions and follow up on issues of interest to the interviewee. The intention was to build an understanding of the value of lifelong learning for groups and the society based on such individual accounts.

Collection of virtual output with elements of observation was chosen as the second main method of gathering data because it enabled the use of material produced by individuals online with their verbalizations, e.g. opinions and reflections on learning and interactions within a given OER available as written text on a discussion forum. Virtual output could be used in a similar way to (interview) transcripts, i.e. as a source of quotations. Quotes from virtual output were not used, however, for ethical reasons explained further on. The output served as a basis to conduct thematic analysis.

Feasibility, ethics and practical issues played an important role in selecting the methods as the project had to be completed ethically and with the resources available (including time).

The core of the research problem of this thesis is in gaining an understanding of

the role and value of various OER in lifelong learning of diverse users through empirical investigations of which the main focus is on motivations for and approaches to learning with various OER among their different users. In other words, from a detailed investigation of users' learning approaches, from gaining an understanding of what motivates them, and from producing descriptions of different OER, the aim was to gain a broader understanding of the role and value of lifelong learning with OER.

Questions in a thesis project should be 'clear [and] researchable, ...connect with established theory and research, be linked to each other, have potential to making a contribution to knowledge...[and]... be neither too broad not too narrow' (Bryman, 2004:33).

The construction of questions and selection of methods of obtaining data to answer them proceeded wishing to remain faithful to the interpretivist epistemology and nominalist-constructivist ontology, fitting them into a qualitative research strategy.

Wanting the questions to be clear and simple but precise, I formulated two main questions in order to address the research problem more precisely and develop a coherent argument of the thesis. To answer each main question two sets of sub-questions were produced to focus on specific things in depth and detail, more descriptively first, gradually building a broader understanding of the answers to the main question(s) basing it on a logical synthesis of the responses to sub-questions.

There can be different ways to link the questions logically, for instance the main question on motivations and influences on learning processes should help in answering the bigger 'role of OER in lifelong learning' question. Information produced to answer the sub-question on user needs and interests might help understand some motivational influences better and enhance the response to main question on motivations and influences on learning. Ultimately the aim was to explore logical links between all sub-questions and main questions.

The motivations and influences question was addressed first because that is what the pilot study had focused on. The focus of this question was also narrower than that of the 'role' question, which helped in constructing the understanding of the role of the OER in lifelong learning in the sense that that broader understanding was arrived at starting from more specific, more detailed investigations on motivations and influences.

The responses to the research questions were reflected upon to see if the answer to main question A can help answer main question B and vice versa.

Main question A - 'What motivates and influences learning with OER among different users?' - had as its aim gaining insight into the motivational and contextual aspects of learning with various OER. This question prompted reflections on how motivation is best researched, observed and measured. What methods one uses to research motivation depends on how one understands motivation. Preferring the definition of motivation for learning that Schunk et al. (2008) present, in which goals and learner's awareness of the learning process

are important, interviews were selected as the key method of producing data through direct interaction with individuals aware of participating in research. The interview method was enhanced with collection of virtual output, the latter believed to have the potential to reveal issues that users might not have mentioned in interviews. Another important reason for choosing virtual output collection as a method of data gathering was the fact that the output would have been produced objectively, independent of the research process.

The two methods were used not only to complement one another in relation to what data and how is gathered but also because triangulation is believed to increase the overall validity and reliability of research studies. The aim was to focus on what participants say and on what they do. Researching motivation in this way was influenced by the view that motivation cannot be 'seen', it cannot be observed directly but it can only be evaluated indirectly, so based on actions and verbalizations (Schunk et al., 2008:4).

As goals are believed to be key in motivation for learning – individuals start learning most likely wishing to accomplish goals (Schunk et al., 2008) – the first sub-question is dedicated to investigating different purposes, aims, intentions, and objectives of learning and interacting within a given OER and also, linked to that, to establishing reasons for choosing specific OER:

1. What are the reasons for and goals (purposes) of learning and interacting on OER?

Data to answer this question was obtained through interviews and virtual output. Interviews were selected because of their direct question-asking potential so suitability to find out to what extent users were aware of their learning goals, if they started using OER for learning with specified plans and hoped for learning outcomes, and, obviously, what these goals and plans (short- and long-term) were.

Virtual output allowed the researcher to search for and observe whether or not users plan their learning, state their goals, and if and how they express emotions and reflections on the reasons for learning with OER. Importantly, virtual output collection granted inter-user observations allowing me as the researcher to read conversations between different users, observing peer relations, interactions and feedback giving.

Both methods made it possible to gather data on different users' reasons for choosing specific OER for learning.

As in researching motivation it is particularly important to understand – once the learning process has begun – what sustains it or what prevents one from progressing, the intention was to look at how various offline and online factors impede and prevent learning and interactions. The context of learning as influencing participants' knowledge construction processes and interactions with the surrounding world was the focus of sub-question 2:

2. How does the online and offline context influence learning and interacting on OER?

Both interviews and output were important as sources of evidence to answer this question. In particular factors that prevented learning and interactions were paid attention to as they were deemed no less important than those supporting learning and interactions. This is because how individuals deal with problems and obstacles – or rather if they deal with them at all and if they persevere in learning or interacting - can reveal a lot about how motivated they are. The question only focused on learning (rather than interactions) where the OER examined did not contain interaction-facilitating tools.

The third sub-question – ‘What approaches to learning can be observed among different users of OER?’ - focused on the ways in which different users learn with OER, so on the actual processes, approaches, activities and paths of learning.

The word ‘different’ played an important role in this question. Initially formulated as ‘how do users learn with OER?’, the answer to the question might have been too general as opposed to when formulated as ‘how do different users learn with OER?’, implying the intention to interview a diverse participant sample thus hoping to gain insight into various different learning situations and describe chunks of different users’ learning worlds.

The methods chosen to collect data on the ‘how’ of learning (and to some extent on the ‘what’, too, as in: how users learn – what activities they do exactly, what

actions they take) were interviews (allowing focus on individual users' approaches) and virtual output collection (to observe general learning trends).

The second main question of the study, main question B – 'What role do OER play in supporting lifelong learning among different users?' – was enhanced primarily with the three sub-questions on what users value (sub-question 4 'What do users value most in learning with OER?'), on what problems they encounter (sub-question 5 'What are the criticisms and problems that users encounter on OER?'), and on their needs and interests (sub-question 6 'What are the needs and interests of various users of OER?').

Apart from interviews with OER users and virtual output, interviews with various experts linked to organizations producing OER were useful as evidence.

Unique assets of each OER, e.g. tools, were described in setting the context rather than in a topical sub-question, i.e. meant to help provide 'information needed for description of the case' (Stake, 1995:25), the difference between a topical and issue question consisting in the latter addressing the research problem. Material used to set the context included screenshots to visually support descriptions and literature available on a given OER or institution behind it.

Bearing in mind that main question B would be addressed after the main motivation question, a lot of data would already be available in relation to user goals, reasons, learning processes and factors that encourage and prevent learning and interactions. That (raw) data and also (written-up) answers to the

sub-questions and main question A were meant to serve as a basis to extract, in a logical sense, different user needs and interests areas, and describe them in the answering of sub-question 6 'What are the needs and interests of various users of OER?'.

Some of the questions were slightly re-formulated in relation to specific OER which is described in relevant cases (see chapter 5 for case studies).

Both main questions were addressed in each case study and summaries of findings are discussed in sections 6.2 and 6.3 where comparisons are made and a broader perspective on the OER landscape of this study is presented.

Qualitative research methodology, case study approach and methods of gathering data via interviews and collection of virtual output were meant to help meet the objectives of the project, support gathering data based on which logical links could be made to answering questions, enhance continuous refinement of the argument of this thesis, eventually helping in producing a piece of quality research and an interesting dissertation to read.

Arguing that good case studies use many sources of evidence Yin (2003) lists interviews as one of the main ways in which data can be gathered within case studies alongside sources like documentation, archival records or materials from observation.

The interview's potential to help understand issues is a major advantage of the

method according to Hinds who recommends them when 'in-depth information is required...and the issues under examination would benefit from development or clarification' (2000:47). Interviews are believed to 'yield rich insights into people's biographies, experiences, opinions, values, aspirations, attitudes and feelings' (May, 2001:120). In line with interpretivism the emphasis was on 'qualitative interviewing', where 'there is much greater interest in the interviewee's point of view [than in the researcher's interpretations]' (Bryman, 2004:313). The interview allowed me to spend time with participants, focusing attention on their accounts.

When used in case studies interviews are considered a strong method because of their capacity to help the researcher stay focused because the interview can – as a method – be 'targeted – [as it] focuses directly on case study topic [and] insightful – [as it] provides perceived causal inferences' (Yin, 2003:86), that is to say participants and the interviewer actually analyse and interpret things during the interview. Their advantage over other methods, e.g. collecting archival records, consists in the opportunity to follow up on things unplanned by the researcher but important to participants – something that is not possible with evidence produced prior to a specific study.

As the main weaknesses of interviews Yin (2003) names '[possible] bias due to poorly constructed questions, response bias, inaccuracies due to poor recall [and] reflexivity – interviewee gives what interviewer wants to hear' (Yin, 2003:86). As far as bias is concerned interviews do, indeed, entail a risk of the researcher being too subjective as a result of a conflict between intended

objectivity and subjectivity brought into the interview situation with the researcher's opinions, hopes and expectations. 'Inter-subjectivity' is a strategy recommended by some to deal with this, e.g. May (2001) who advises to aim for a balance between being fully engaged and detaching oneself from the analysis (starting presumably already during the interview), where 'a sustained relationship appears to produce a successful interview from a qualitative point of view, while a more detached and standardized form is assumed to produce more reliable data' (May, 2001:127).

A tool recommended to help achieve that balance between engagement and detachment during an interview, particularly when its format is semi-structured, is the interview guide listing set questions or topics to discuss. Bryman argues that 'the researcher [should have] a list of questions or fairly specific topics to be covered, often referred to as an interview guide, but the interviewee [should have] a great deal of leeway in how to reply' (2004:314). Preparing interview guides was also helpful in identifying what exactly needed to be established to answer each research question, a technique of which Bryman (2004) speaks.

How useful and how suitable the interview can be as a method also depends on the participants, e.g. whether they are children or adults. As only adults were intended as participants of this study, who furthermore were self-directed learners, the expectation was that they would reflect on their own learning and communicate efficiently.

The mode of conducting interviews depends on a number of factors, e.g. geographical location of participants. As in this study OER users were dispersed all over the world, conducting interviews remotely over the phone rather than face to face helped save time and costs.

What is referred to as ‘virtual output’ in this thesis is simply the material produced by users of those OER where it is possible to produce such output, e.g. where there are discussion forums where individuals can post or where it is possible to create learner profiles visible to others. The output is called virtual because it had been produced online. Material like screenshots of learning clubs linked to learning units or print-outs of forum discussions can be used as virtual output, while some output can be produced by users and some exists independent of their actions, e.g. space for discussion.

This method entails stages of observation and selecting the output that the researcher wishes to collect. It was chosen for the main study as it had been used in the pilot where it proved an unobtrusive, convenient and resource-saving way of gaining access to plenty of different interesting data. More on using virtual output is contained in the OpenLearn pilot study section. Collecting output allowed for being strategic and flexible, searching purposefully for data to answer questions while remaining open to issues that might reveal themselves as important, e.g. from posts on what users liked, observing what activities they participated in or what they were critical about.

Generally the design of the main study, including the choice of methods, was

heavily influenced by the experiences of the pilot and by the already discussed recommendations of researchers from the field of social sciences and the emerging trends within the new area of research on open, web-based and participatory learning discussed throughout the thesis.

4.7. Analysing data

Two different methods were used to analyse the data gathered in the study both based on the principle of thematic analysis of qualitative data. The first method referred to as the Miles and Huberman (1994) framework for analysis of qualitative data was used to analyse the data gathered through interviews. The second method is referred to as thematic analysis of virtual output (Preece et al., 2002).

The first method has as its objective extracting (in the logical sense) the meaning contained in a text through a few stages: the first stage of displaying data, e.g. in the form of an interview transcript. The next stage consists of data condensation and reduction (both in the logical and physical sense) – this is when so-called first level inferencing starts based on simply describing the content of transcripts. As the inferencing moves on to higher, more abstract levels, the actual meaning, the messages contained in a text reveal themselves, allowing the researcher to draw conclusions and findings. Miles and Huberman (1994) recommend coding and memoing (simultaneously) throughout all stages of analysing data or even at the stage of collection. The authors explain that

memos, i.e. notes on observations and ideas, help researchers logically connect ideas made based on the data gathered, regardless of whether the analysis is inductive or based on pre-set codes. This method was selected for the main study as it had proved satisfactory in the pilot for which it was selected as it had aligned with the main objectives of the study. How the analysis of interviews progressed is described in detail in the case studies section.

The thematic analysis of virtual output (as qualitative data) of which Preece et al. (2002) speak can be conducted in two ways: descriptively, to 'tell the story' (2002:379), as the authors put it, or systematically, resembling structured content analysis with pre-set categories. The approach taken throughout the study was descriptive due to the qualitative focus of this work.

4.8. Validity, reliability, significance and truth

As the study was qualitative and generalization was not the main point it was important to consider how relevant the findings might be for users of other OER and what the universal value of this thesis would be. Generalisation of findings can be understood as external validity or 'transferability' (Robson, 1993:404) of the results onto a wider population. Blaxter et al. (2001) state that:

'The concept of generalizability, or representativeness, has particular relevance to small-scale research. It relates to whether your findings are

likely to have broader applicability beyond the focus of your study' (Blaxter et al., 2001:221).

Some also speak of significance, which can be understood in a more general sense or statistically. Generally significance 'has to do with how important a particular finding is judged to be' (Blaxter et al., 2001:221). In the statistical sense 'it refers to the likelihood that a result derived from a sample could have been found by chance. The more significant a result, the more likely that it represents something genuine' (Blaxter et al., 2001:221). In the context of this thesis this refers to whether the findings of the study would be relevant and applicable to a wider group of OER users rather than only the study's participants.

The study's purpose was not to produce generalizable findings, though, but to focus on the individual and the unique, on 'particularization'. Therefore rather than aiming for 'broader applicability' (Blaxter et al., 2001:221) the aim was for the findings to be significant as in important, meaningful, even if they should be relevant for only some OER users or some OER. A discussion on how generalizable and significant the findings of this study are follows in chapter 7.

As Punch observes, 'for qualitative research, the relevance of the criterion of reproducibility is a matter of debate in the literature' (2005:195). It is rather objectivity and 'how one can establish confidence in the "truth" of the findings of a particular enquiry for the persons with which, and the context in which, the enquiry was carried out' (Robson, 1993:403) that matter. In order to achieve

this truth value in this study the intention was to be clear and transparent about what was done, how and why.

Robson (1993:403) also speaks of neutrality and some techniques that could be used to increase the credibility or 'internal validity' of a study, e.g. 'prolonged involvement [, i.e.] the investment of sufficient time to learn the "culture"' (1993:404), particularly in case studies. Validity 'has to do with whether your methods, approaches and techniques actually relate to, or measure, the issues you have been exploring' (Blaxter et al., 2001:221). One of the main things done to ensure validity of the study was choosing the right methods, as previously stated, - ones that would help to generate relevant data to answer the research questions of this study. This step was given plenty of consideration (see section 4.6).

Triangulation - using various methods or sources of evidence (Robson, 1993) - was also applied in relation to data collection as a strategy believed to increase a study's validity and reliability, i.e. 'the likelihood of the same results being obtained if the procedures were repeated' (Wilkinson, 2000:42). Some refer to the latter as consistency, i.e. relating to the question 'How can one determine whether the findings of an inquiry would be repeated if the inquiry were replicated with the same (or similar) subjects (respondents) in the same (or similar) context?' (Lincoln and Guba, 1985:290). Blaxter et al. advise that one way to help the researcher achieve greater reliability of a study is for them to ask themselves the following question: 'If another researcher looked at my data, would they come up with the same results?' (2001:221). Reliability has to do

with whether you have ‘carried it [-your research] out in such a way that, if another researcher were to look into the same questions in the same setting, they would come up with essentially the same results...’ (Blaxter et al., 2001:221). In order to ensure objectivity, check the correctness of analysis and in this way test or perhaps increase the study’s reliability a technique of peer debriefing, i.e. ‘exposing one’s analysis and conclusions to a colleague or other peer’ (Robson, 1993:405) was also used, following the recommendations of Blaxter et al. (2001). Peer debriefing was conducted with a fellow PhD student (see section 7.5 for reflections).

To make a research study more robust Silverman advises researchers to overcome ‘the temptation to jump to easy conclusions just because there is some evidence that seems to lead in an interesting direction. Instead, we must subject this evidence to every possible test’ (Silverman, 1993:144). The intention was thus to look at the data gathered at least twice at different times, starting with different questions on each occasion. Records of interviews, interview guides and notes made during the research process were kept to help facilitate this cross-checking process.

Note-making and journal-writing are crucial in the analysis process as they help the researcher to remain systematic and are believed to increase the reliability of observation. Silverman recommends developing a system of work and to ‘systemise field notes and thus improve their reliability’ (Silverman, 1993:147). Being able to look back at one’s notes and think about what had been written enables researchers to scrutinize their own work and perhaps even see things in

a different light after a while. Systematic note-making demands discipline but at the same time helps to keep discipline, which is key in conducting case studies well – a good case study depends on (self-)discipline, Stake (1995) argues.

There are various ways of ensuring reliability that differ between methods, e.g. when it comes to observation describing the context in detail plays a key role (Silverman, 1993).

Setting the context well was particularly important in this project because of choosing a case study approach and qualitative methodology. The aim was to describe each OER in detail, present the organization linked to it, and finally render the fullest possible picture of what the context of learning with each OER consists of with online and offline factors influencing that learning.

To ensure transparency, my opinions on OER in lifelong learning were stated clearly at the beginning of the thesis and have been revisited throughout.

In relation to case studies specifically, Yin (2003) speaks of four conditions related to the quality of design: construct validity, internal validity (for explanatory or causal case studies only), external validity and reliability. Yin (2003) stresses the need of drawing accurate conclusions, ensuring logic and being systematic. Thinking about one's research design is therefore the first step to ensuring the robustness of case studies. Yin defines a research design as 'the logic that links the data [that is to be collected (and the conclusions to be drawn)] to the initial questions of study' (Yin, 2003:19). Therefore being systematic and thinking carefully about how to gather what evidence to address

what research question are essential (Yin, 2003:21). In the context of this thesis that design was given a lot of consideration which has already been discussed in relation to the epistemological and ontological stands preferred, research strategy and approach chosen and methods employed to answer the questions.

Going back to the problem of making generalizations Stake mentions that in some case studies 'certain activities or problems or responses will come up again and again' (Stake, 1995:7). Therefore generalizations can arguably be drawn even if the study is not quantitative and sampling non-probabilistic. Stake also speaks of 'modification of generalizations...substantiating...and refining meanings' (1995:9-12), pointing towards constantly reflecting upon the meanings constructed throughout the research process. Such reflexive and critical approach demands patience:

'A good case study is patient, reflective, willing to see another view'
(Stake, 1995:12).

Continuing on the problem of objectivity versus subjectivity, the hermeneutical school perceives one's pre-knowledge as vital to being able to analyse the data rather than obtruding objectivity. Subscribing to this view I wished to use my experiences from conducting previous studies while aiming for sufficient distancing, wanting to achieve what Robson describes as 'neutrality...[...], trustworthy answers...[and] treat the evidence fairly and without bias,...[not] ruling out alternative interpretations' (Robson, 1993:372). Researchers should be alert to being objective and not fall into the trap of what Robson describes as

'holistic bias' (1993:403), i.e. 'where everything seems to fit into the picture; achieved by ignoring, or giving little weight to, the things that don't' in arriving at explanations.

In order to remain self-critical and objective the aim was to reflect on the research questions and issues throughout the research process in line with Stake's (1995) recommendations:

'As the questions draw forth understanding, the researcher begins to restate the issues as assertions, tentatively at first, with greater confidence as new observations are made and old observations confirmed' (Stake, 1995:20).

Issues evolve in the research process. Etic issues are those 'brought in by the researcher from the outside' and need to be adjusted to the case whereas emic issues are 'issues from the inside' (Stake, 1995:20).

As far as questions are concerned Stake differentiates between topical and issue questions, topical questions being ones that 'call for information needed for description of the case...[and]...covering the anticipated needs for information' (Stake, 1995:25-28) whereas the issue questions are meant to focus attention on key problems to address (Stake, 1995). Good questions should reveal themselves in the research process, so to speak: 'the best research questions evolve during the study' (Stake, 1995:33). At the stage of designing the research, it was important to develop good questions, both issue and topic questions, to

use the distinction of Stake's: 'Good research questions are especially important for case studies because case and context are infinitely complex and the phenomena are fluid and elusive' (Stake, 1995:33). The overlapping of the context and the phenomenon has been discussed in earlier sections of this chapter.

4.9. Ethics, privacy, confidentiality

The study proposal was submitted to The Open University Human Participants And Materials Ethics Committee (HPMEC). The project was approved by the committee with a recommendation to consider using the ESRC Revised Framework for Research Ethics for online research, registering the research with the Data Protection Officer and following relevant checks procedures if pupils aged 16-18 were to be involved. The committee also recommended that the sources of funding the project be clearly stated on participant information and invitation letters and, if possible, to place a note on a relevant OER website with information about the research. In relation to the last point, a description of the research project was included in the profile created by me on OpenLearn, a relevant description was contained in the invitation to the study on the MPF website producing the WL initiative, and information about research conducted alongside an invitation to participate was posted on OpenStudy by the OpenStudy team on my behalf. No information was posted on OpenSpires and METU OCW because there are no external user accounts on either of these and participants were recruited from among and via

the producing team members and academics as described in detail in each of the case study.

The source of funding as the OU and Hewlett Foundation studentship was stated clearly in all information and invitation letters to participants.

The only participants who were anticipated to be under 18 were the pupils included in the Wolne Lektury case study, who were aged 16-18, and who were involved in the direct classroom observation stage of data collection. Therefore Criminal Record Bureau (CRB) checks (an Enhanced Disclosure from The Criminal Record Bureau) were conducted in order to be able to gather data from these participants. The process followed in this case was that the teacher was present at all times during the lesson. The invitation to these pupils to e-mail their feedback on the voluntary homework assignment to the researcher was also made by the teacher (on behalf of the researcher). The project was registered with the Data Protection Officer at The Open University's Institute of Educational Technology. The proposal was reviewed and accepted by the committee subject to my taking into consideration the recommendations outlined.

The whole research study was conducted in accordance with the general ethical guidelines of BERA (2004) and The Open University Code of Practice For Research and Those Conducting Research (the OU, 2008-2012). The principles contained in the ESRC Framework for Research Ethics (ESRC, 2010) were taken into consideration following the committee's recommendations.

No vulnerable adults or children were intended as participants of the study therefore no ethical controversies or issues were anticipated. Reflections on ethical issues encountered are contained in chapter 7 on critical considerations on the research process. In line with the undertaking given to participants in the invitation letter, all interview data will be destroyed once the project is complete. Completion of the project is to include any publications arising from this thesis. This may involve data retention for some time, depending on the policy of the journals or conferences in which the publications appear.

The general procedure for inviting participants and obtaining informed consent was as follows. Shortlisted participants were invited via e-mail with two attachments: a detailed information and invitation letter and a consent form (see appendices). Informed consent was obtained from those who had agreed to participate through their electronic or physical signatures on the forms, by typing in their names in the forms or by expressing their consent in emails.

The steps taken to protect the identities and privacy of participants involved were anonymising data and not using verbatim citations where it was not deemed ethical. All interview information in this thesis was anonymised so that the individuals could not be identified but where experts or academics linked to specific OER were interviewed these might be identifiable, e.g. if stated that a podcast series of a lecturer was global number 1 on iTunesU in a given year.

In relation to output gathered no verbatim citations were used, again, so as not to make various OER users identifiable, especially if they did not realise their

output might be used for research purposes. Output was thus only used for thematic analysis purposes. It was gathered and used as permitted by the terms and conditions and privacy policy of the OER initiatives looked at. Nevertheless it should be acknowledged that gathering virtual output generated by users on OER might be perceived as a contentious issue by some. Web research is relatively new, online settings are therefore still test spaces for optimal sampling approaches and data collection techniques. The intention in this project was to use the OER settings to gather as much useful data as possible but having in mind the safety and privacy of participants, trying to keep that balance in mind throughout the research process.

5. Case studies presented: five OER initiatives examined

5.1. Section overview

This chapter presents case studies of the five OER initiatives examined: OpenLearn, OpenStudy, OpenSpires, METU OCW and WL of the MPF. All parts of the case studies are presented in the same order except where the answers to the sub-questions are not presented. In each case study first the focus is stated along with objectives and questions adapted specifically to the OER examined, followed by descriptions of the OER sites as research environments and reasons for their selection for research. Issues relating to participant sampling and data collection and analysis methods that are specific to the case study are discussed next, and findings and conclusions are presented last.

The principle applied in arriving at the findings was addressing a series of detailed descriptive sub-questions first and then synthesizing them into the responses to the main questions. The findings were interpreted and discussed, where relevant, based on the literature reviewed in chapters 2 and 3 on the concept of lifelong learning, different ways of understanding motivation for learning, and different approaches to learning (adapted to the context of learning with Open Educational Resources). Closing reflections contain discussions on the significance of the findings, methodological strengths and

flaws of each study and suggestions on possible directions and ways of conducting further research. The results of all case studies, methodological strengths and limitations and reflections on the significance of the research are also discussed in chapters 6, 7 and 8, respectively, where comparisons across cases are drawn where relevant and an overall critical view on the research and its contribution is aimed at.

In cases where there are socio-collaborative tools on the OER, i.e. OpenLearn and OpenStudy, the research questions also address the motivations for and the role of interactions.

In principle, across case studies, sub-questions 1-6 were used to answer both main research questions despite the initial formulation of sub-questions 1-3 to help answer the 'motivations' question and sub-questions 4-6 - the 'role' question. This is because the responses obtained to sub-questions 4-6 turned out to be relevant in addressing the main 'motivations' question while responses to sub-questions 1-3 helped in understanding the role of OER in supporting learning and answering the 'role' question.

The answers to sub-questions are presented mainly in the form of points listing what was ascertained enhanced by descriptions, explanations or examples with quotes. In a few instances the responses are summarized and presented in tables. The classifications of learning approaches in sub-question 3 are different in different case studies depending on what features are available within a given OER and what was observed based on the data gathered. Some issues are

relevant to more than one question, e.g. in answering the main 'role' question on OpenLearn users' own perceptions were crucial so the answer is strongly linked to the 'what users value most' sub-question's response.

Each case study is presented separately in line with the approach applied in this thesis focusing on uniqueness, understanding of the individual case and describing it rather than focusing on comparisons. However, in chapter 6, a summary of results based on responses to all case studies' sub-questions is presented before discussing the answers to the two main research questions that are based on the findings across all five case studies. The rationale for that strategy is presented in chapter 6.

The OpenLearn section is presented first as it contains the pilot study that was conducted on OpenLearn and a discussion on how it influenced the direction of the main study both in relation to OpenLearn and other OER. Therefore it is longer than other case studies.

OpenStudy is presented second mainly because it was the only other OER apart from OpenLearn with socio-collaborative tools. The intention of presenting the two studies one after another was to enable a better drawing of comparisons between how socio-collaborative tools are used by users of the two OER. As OpenStudy only provides tools and spaces to support learning with other OER and OCW and no educational material, and also because fewer participants were recruited in this study in comparison to the OpenLearn one, this section is considerably shorter than the one on OpenLearn.

OpenSpires is next as the first case study presented in which the perspectives of individual contributors, producers and educators come into the foreground, showing different user interests, e.g. in individual lecture series or even lecturers, than those observed among OpenLearn users (on OpenLearn resources as OU-produced courses).

A small case study of METU OCW as the only OpenCourseWare looked at in this thesis follows based on two expert interviews.

The last section presents a case study of using the resources of The Modern Poland Foundation (MPF) on the example of Wolne Lektury (WL) as the only web library researched in the thesis developed to facilitate and support learning. Incorporating the area of facilitating the learning of others rather than just focusing on how WL are used to support learning differentiates this case study for instance from the OpenLearn one in which it was the learning that was the focus.

The order of presenting the case studies also reflects the chronological order of starting the negotiation of access to participants of each OER before the collection of empirical material so it could be said that the order presented itself naturally.

Although some participants, e.g. all interviewed experts, had agreed to be quoted non-anonymously, the data used was anonymised, as suggested by the Ethics Committee approving the research. If quotes from interviews with

experts or individuals in particular roles were used (OpenSpires, METU, WL), the participants' roles were specified, e.g. Project Director (PD). Where users and learners were quoted, the quotes meant to be exposed as individual examples were signposted with initial(s) changed for privacy reasons. Other quotes (usually shorter), e.g. used as examples of user group preferences or expressions used in interviews, were not signposted.

Informed consent was obtained from all participants interviewed after sending them electronic invitations with relevant information presented in detail and consent forms to sign should they agree and decide to participate (see appendices).

5.2. Type and volume of data gathered from interviews, virtual output and observation

Altogether 34 interviews were conducted with participants from all five case studies and used as primary data. 31 interviews were audio-recorded (most of them lasting between approximately twenty minutes and one hour), out of which 27 were conducted remotely, telephonically, and four face-to-face (where that was possible, e.g. during a visit in the OpenSpires project team office). Three were conducted via e-mail (as per participant requests).

The OpenLearn was the 'biggest' case study in terms of data collected with eighteen interviews with users in the learner role conducted: seven in the pilot

phase and eleven in the main study.

Cross-case comparisons in relation to response rate(s) are not always appropriate as some invitations were open, e.g. the one posted on the MPF website, it is therefore unknown exactly how many individuals may have read it. On OpenLearn, for instance, 39 invitations to participate in the pilot and 50 invitations to the main study were sent out, so altogether 89 individuals were approached. The response rate to the OpenLearn study invitation was thus 18/89 so just over 20% (the response to the pilot being 7/39 and to the main study – 11/50). This calculation is meant to serve merely as an illustrative example, bearing in mind that the focus of the OpenLearn study was not quantitative and the sampling was purposive and deliberate. The intention was to recruit about ten to twelve individuals in each phase with the aim of obtaining a diverse user sample in terms of learning interests, gender and geographical location. It must also be stressed that more than the target 10-12 users were emailed deliberately, knowing that - based on the experiences of other researchers, e.g. from OLnet - a high response to studies like that would be unusual. The ideal recruited number of participants would have been around 20-24 (which would mean that the eighteen recruited individuals constituted a 90 - 75% success rate in relation to the expected ideal response).

In the OpenStudy phase three users were interviewed telephonically, three by email (as they had insisted on providing their feedback in this way rather than in an interview), and two OpenStudy research team members were interviewed remotely (telephonically), too. Six users participated after shortlisting 86 users

selected online from various study groups whose users the OpenStudy team had agreed to approach on my behalf. What was initially viewed as a weakness - a low number of recruited participants – was taken advantage of in the form of using the space available to experiment with the way of approaching and answering the research questions.

In the OpenSpires case study four interviews were conducted, three with Oxford University Computing Services (OUCS) experts from the OpenSpires production team and one with a lecturer who provided her insights based on the feedback provided to her from about 100 learners. One lecturer provided feedback by email comprising thirteen emails from nine individuals who used his podcasts for learning.

Two experts were interviewed in the METU OCW case study who based their feedback on their everyday experiences as METU faculty members, lecturers and researchers involved in research conducted within 48 higher education institutions in Turkey.

In order to produce the WL study, four team members of the MPF were observed and talked to and two individuals recruited on the MPF website were interviewed telephonically, one of whom provided access to a class of twenty pupils for direct observation purposes. From among the twenty pupils one responded to the invitation to a voluntary homework feedback assignment after which he emailed written feedback (as responses to pre-set questions and free comments) which was used as data.

Table 1 summarizes the types and numbers of primary data and participants involved in each case study. Conversations with and observations of OpenLearn and OLnet team members and researchers were not used as separate items, e.g. interviews or descriptions, because of the focus on those in the learner role in the OpenLearn study. Therefore, although they were useful in helping to set the context, understand the objectives and make methodological decisions, they were not included in the table.

Table 1b presents key figures, dates and numbers on the OER examined, such as the number of users of a given OER or the number of resources available for learning.

Table 1. Summary of data and participants included

OER	Interviews	Virtual output items and users observed directly	Comments
OpenLearn	18 (with users, telephonic)	68 profiles, 16 journals, 8 learning clubs and forums, 1 subject forum, min. 383 forum posts of 210 users (all from 12 subject areas); no users observed directly	Focus on learners, abundance of output on site
OpenStudy	8 (with 6 users and 2 experts; 5 telephonic, 3 e-mail (user) interviews)	86 user profiles from 6 study groups, each with a discussion forum and chat; no users observed directly	Link to specific MIT OCW courses connected to the groups studied, focus on learners
OpenSpires	4 (with experts; 1 telephonic, 3 face-to-face)	14 pieces of feedback (13 e-mails from 9 users and 1 from 1 lecturer); no users observed directly	Mostly f2f interviews, shift in focus to educators
METU OCW	2 (with experts; telephonic)	-; no users observed directly	2 participants recruited (out of 2 invited, educators)
WL	2 (with users; telephonic)	1 piece of feedback e-mailed by 1 user on the voluntary homework and 24 users observed directly: 20 pupils and 4 MPF members (talks during visit)	Initial open invitation on the MPF site, 2 educators recruited, observation significant
Total	34 (telephonic and email)	589 output items produced by 307 users and 24 users observed directly	Data non-homogeneous

Table 1b. Key numbers, dates and figures on the OER examined

OER and year of launch	Users/ accesses (e.g. number of visitors, registered users, downloads, etc.)	Core learning content (e.g. number of units, podcasts, courses, etc., related information and websites) and language used	Institution linked founded in
OpenLearn 2006	Over 3 million unique visitors in the first 18 months (75,000 registered), ca. 100,000 unique visitors per month (McAndrew et al., 2009); 10-millionth visitor in January 2010 (OU, 2010-2012)	600 learning units, over 91 learning clubs, 12 subjects/ topic areas (on LearningSpace, pilot, spring 2010); user accounts, profiles and journals optional; available in English from http://www.open.edu/openlearn/	The OU, UK 1969
OpenStudy 2007	150,000 students from 180 countries (2013 (OpenStudy, 2009-2012))	Study groups from over 14 subject areas (e.g. linked to the MIT were courses in computer science, mathematics, biology and chemistry and at least 4 study groups); each with a forum and chat; user accounts and profiles optional; available in English from: http://openstudy.com/	n/a or linked to various, e.g. MIT 1861
OpenSpires 2009	18,000 downloads per week (example of the most popular item of the lecturer interviewed); 'over 1 in 7 (15%) accesses of...material...initiated directly from mobile devices' (Geng et al., 2011:14).	Over 700 podcasts from 140 Oxford academics and visiting speakers (Mansell et al., 2010:4); full range of subjects from humanities to sciences, plus museums, libraries, colleges and Department of Continuing Education; 'eight complete Oxford lecture series [and] thirty sets of research seminars, interviews, conferences, presentations and panels' (Mansell et al., 2010); available in English from: http://openspires.oucs.ox.ac.uk/ and http://podcasts.ox.ac.uk/openspires.html	University of Oxford, e.g. 13 th century for some colleges
METU OCW 2008	e.g. 'every semester thousands of students are taking [the] chemistry lab courses [as one of the top materials]' (AP, 2011)	73 academic courses taught at METU and supporting materials published by 35 faculty members from 19 departments (Spring 2011); available in Turkish and English from: http://ocw.metu.edu.tr	Middle East Technical University 1956
WL 2009	over 100,000 visitors a month (in 2009, source: Modern Poland Foundation (MPF) chairman interviewed)	A web library of obligatory secondary school level reading texts for Polish schools (plus extra materials, e.g. annotations, motifs); almost 1,000 texts in the library in the first two years (MPF chairman interviewed); available in Polish from: Wolnelektury.pl	MPF 2001
Total: 5 OER (2006-2009)	Millions of unique visitors altogether, hundreds of thousands of students, thousands of downloads weekly	Full range of subjects; over 600 learning units, 700 podcasts, 73 academic courses, 175 contributors, ca. 1,000 literary texts, ca. 95 learning clubs or groups; available in 3 languages from 6 websites	at least 6, founded across ca. 7 centuries

5.3. Data collection, processing and analysis

All interview material gathered was analysed using the Miles and Huberman (1994) framework for qualitative data analysis based on, as explained in detail in the methodology, stages of data display, reduction and condensation, proceeding from drawing inferences at first level to finalising the analysis at the stage of drawing conclusions, while coding and 'memoing' the data throughout the process.

That method was chosen because of its focus on themes which aligned with the main objectives of both the pilot phase and the main study – which were to identify key themes emerging from participants' accounts and arrive at explanations based on the meaning and links that could be so identified. The semi-structured format of the interviews allowed for meaningful links to emerge naturally during the interview. Pre-set questions meant that the researcher could focus on pre-planned themes but there was also space for the interviewee to talk about issues that might not have been anticipated in the interview questionnaire but revealed themselves during the interview. The analysis process based on linking themes, extracting meaning and making logical connections between ideas – like the one of Miles and Huberman (1994) – could thus begin already during the interview.

Memos 'are always conceptual in intent....[tying] different pieces of data together in a cluster [or showing] that a particular piece of data is an instance of a general concept' (Miles & Huberman, 1994:69). The analysis was inductive,

progressing from a detailed analysis onto making generalisations and drawing conclusions.

For example, one conclusion drawn or, perhaps, observation made by me in the OpenSpires case study is:

‘Thanks to OpenSpires Oxford alumni can check the work and people at their old departments. Some feel it helps them go back to their student years or rediscover and return to a subject they had to put aside’. To support this statement a citation from an interview with an OpenSpires team member follows as:

‘We get people saying ‘I studied the subject in question twenty years ago but I have been doing something else now for a while...now that I am retired... I am able to return to it and see what’s happened in the intervening years and get back into something that I enjoyed previously...’. I think it has – from the feedback we’ve got – demonstrable benefits in bringing people back to subjects which they may have left because they’d moved into other areas’.

The extract above is a piece of raw transcript, a verbatim citation (also presented as data in section 10.3). Not only does it serve as evidence of users reporting to the OpenSpires team that they use OpenSpires to link back to subjects studied in the past but it contains an opinion and evaluation of the interviewee on the benefits of using OpenSpires, on its value to users. As a

researcher I observe that the information contained in this piece can serve to answer for instance the main role question (e.g. one role of OpenSpires is allowing users to return to subjects studied), the sub-question on what users value (e.g. the possibility of returning to subjects put aside) and the sub-question on what influences users using OpenSpires (e.g. the fact that they are retired – assuming they have the time). The information can be coded into or categorized under ‘role’, ‘valued’ and ‘factors’ and assigned to answer more than one question or sub-question.

The issue of retirement in this piece can be linked to (presumably senior) age and (availability of) time. Another logical connection can be made in this place to an extract in which the same interviewee mentions admissions as very popular, implying interest from secondary school graduates who are presumably young:

‘...we know that the admission podcasts are popular and we know that even before we started any of this the admissions people were doing their own podcasts and having a great deal of success with them’.

The above quote can be coded and categorized under ‘admissions’, ‘educational role’ or ‘age’. This and the previous quote can be used as evidence to argue that OpenSpires support lifelong learning among the young as well as the senior, among those in formal education and also the retired non-formal learners.

The following comment on the previous quote made spontaneously by me while listening and transcribing is an example of a memo:

[‘THIS IS NEW, PEOPLE ‘RETURNING’ TO SUBJECTS; THANKS TO OPENSPIRES
SIMPLY MAKING IT AVAILABLE AND ACCESSIBLE OPENLY AND FREELY]

This note (made in capital letters to differentiate it from the actual interview transcript) is a reflection of the thought of the researcher, linking what the interviewee had said and what I already knew about OpenSpires – that it was accessible freely and openly.

A basic, first-level description, inference of the previous quote would be:

‘the interviewee said people (OpenSpires users) were saying that they were able to return to subjects they had studied years before after having done something else for a while; based on what the interviewee had said there was feedback to serve as evidence of user satisfaction with the fact that they could [my inference/ conclusion/ link: thanks to OpenSpires) return to a subject put aside’.

An example of a conclusion drawn from this would be: ‘OpenSpires helps people return to subjects put aside’. This conclusion would be substantiated by the fact that there is evidence to support it obtained through an interview with an OUCS expert basing his opinion on the feedback obtained directly from OpenSpires users. Therefore, even though not many individual experts were interviewed in the OpenSpires, METU OCW and WL case studies, what they say in them is used as credible because based on direct user feedback and observations. Thus it is believed sufficient to support conclusions drawn in this thesis, albeit without

excluding that there might be users with different opinions and further research is therefore needed to keep investigating the field of using OER for learning. An abstract link made based on that citation could be the following question: ‘who are these people? Are these only retired people?’, etc.

As far as the chronological order of the stages of analysis is concerned, Miles and Huberman present the ‘flow model’ diagram (1994:10) upon which Figure 2 was based:

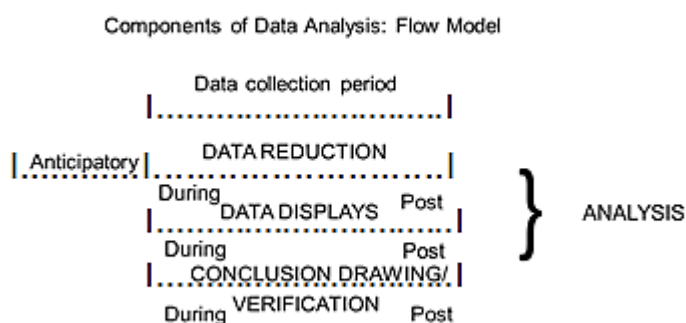


Figure 2. Flow Model (based on Figure 1.3 ‘Components of Data Analysis: Flow Model’ (Miles & Huberman, 1994:10))

‘Our general view of qualitative analysis is outlined in Figure 1.3’, the authors say (1994:10). Even though, in the chronological sense, there *is* some order in which these stages happen, beginning with the collection, followed by the stage of reduction and lastly analysis, in the abstract sense, these stages are, as Miles and Huberman say, ‘concurrent’:

‘We define analysis as consisting of three concurrent flows of activity:

data reduction, data display, and conclusions drawing/ verification’
(1994:10).

Data reduction can already begin, as the authors explain, at the stage of thinking about the research questions, even without the researchers being fully aware of the process. The processes and stages are, then, physically – literally - and logically - in the abstract sense – interspersed, e.g. the display stages (are deemed to) entail some analysis:

‘The act of writing text as you ruminate over the meaning of a display is itself a focusing and forcing device that propels further analysis’
(1994:101).

Through Figure 5.4 ‘Interaction between display and analytic text’ (1994:101) Miles and Huberman show how explanations can be developed and relationships discovered throughout and between the stages and processes of display and analysis (see Figure 3). In this thesis the stages of writing and display provoked further analysis or reflection on the findings across case studies. These reflections are discussed in the final discussion chapters. As there were five case studies conducted, the analysis stage was on-going throughout the whole research process because as results of one case study were generated they were compared with the results of previous case studies.

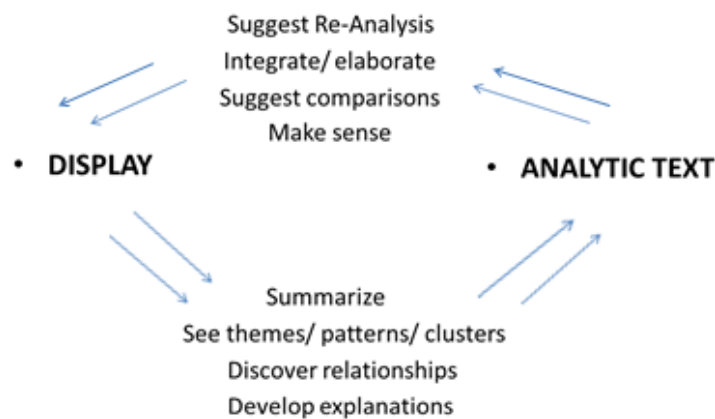


Figure 3. Display vs. Analysis (based on figure 5.4 'Interaction between display and analytic text' (Miles & Huberman 1994:101))

Interviews were audio-recorded. Audio material, transcripts and notes are stored on electronic files and as print-outs or hand-written notes. The interviews were listened to and mostly transcribed verbatim but sometimes the audio was rendered directly into descriptions, so-called first level inferences, after listening to a longer chunk of the recording. This was done with the purpose of increasing efficiency wherever it was possible at the same time stopping or rewinding the recording to capture and type a quote verbatim whenever it was identified as suitable to help support findings. The omission of the full transcription stage was sometimes possible because of working on the audio versions immediately after conducting interviews, with ideas discussed still fresh in mind. In some cases the decision to transcribe interviews verbatim was linked to the fact that some time had passed from conducting the actual interviews so things were not that fresh in mind but gradually recalled during

the listening to the recordings in chunks, making the transcriptions and also using notes made during interviews.

Transcripts and descriptions served to display data that was later condensed and reduced gradually, both literally, in the physical sense of condensing the volume of words as data and in the logical sense of extracting meaning from the data and leaving out the 'noise'. Data display material served as a source of participant citations and examples. Transcripts and descriptions can therefore be referred to as 'data displays'. The advantage of transcripts lies in the fact that they can serve as a source of citations and so, even if an interview was analysed at first level already from listening, those parts that could serve as citations to support claims were transcribed verbatim. Interview guides were used during all interviews with lists of items to cover (see appendices).

Based on the Miles and Huberman (1994) framework the process of drawing first-level inferences should be understood as the initial logical stages, the more basic, simple descriptions of data that are the beginning of meaning extraction. These – if rendered in the form of notes – could be simple descriptive statements. As the logical analysis progresses the inferences gradually become less descriptive and more abstract, eventually leading towards reaching conclusions. Analysing the data gathered using the Miles and Huberman (1994) framework in this study was based on filtering out the meaning from the data, endeavouring to spot the answers to the research questions that might be dispersed in the data, to see abstract ideas that emerged from it, make links between concepts contained in the data and eventually extract the meaning

from the data and write it down in the form of findings as answers to the research questions.

In practice I worked with audio first to produce a text document and worked with that text as a basis to build meaning. Audio versions of the interviews recorded were played and stopped at various intervals, depending on the meaning of what was said. Sometimes the tape would be stopped after several seconds and sometimes after a few minutes. Working sub-question by sub-question chunks of texts were deleted by me (whenever I worked with the text in a text editor or crossed out whenever I used a paper version of 'data displays') as I worked through the transcript/ description transforming what I had written down as a transcript and descriptions into responses to sub-questions only leaving verbatim parts wherever these were to serve to support claims. The logical process of transforming progressed according to the description above, from first-level inferences to reaching conclusions.

Observations were made while listening as written comments on ideas and notions of what a sentence or a quote might exemplify and to which sub-question or question it related. Ideas and memos would be written in capitals to differentiate them from descriptions and quotes. Notes made during interviews were also used to help in recollecting ideas which arose while talking to a given individual. The notes and questions were looked at, and answers to them were looked for in the scripts, working from sub-question one to six and then focusing on the main questions, using the answers to the sub-questions as basis to answer the main questions.

5.4. Case study: OpenLearn and the pilot study

5.4.1. Introduction

5.4.1.1. Focus, objectives and questions

The focus of the main study was on gaining insight into different motivations for different approaches to learning with OpenLearn among diverse users. The objectives were to explore, seek to understand and describe how OpenLearn is used for learning by individuals and communities and what drives these processes, including intrinsic factors as well as external, contextual influences that might enhance or impede the learning or interactions. Ultimately gaining insight into these was supposed to help understand the role that OpenLearn might play in supporting lifelong learning among different users. Adapted to the context of OpenLearn the questions asked were:

Main question A: What motivates and influences learning with OpenLearn among different users?

Supported by sub-questions:

- 1. What are the goals (purposes) of and reasons for learning and interacting on OpenLearn?**
 - a. What are the goals (purposes) of and reasons for learning on OpenLearn?**

- b. What are the goals (purposes) of and reasons for interacting on OpenLearn? (through forums, learning clubs, via profiles, journals, others)**
- 2. How does the online and offline context influence the use of OpenLearn (both learning and socio-collaborative interactions on OpenLearn)?**
- 3. What approaches to learning can be observed among different users of OpenLearn?**

Main question B: What role does OpenLearn play in supporting lifelong learning among different users?

Supported by sub-questions:

- 4. What do users value most in learning with OpenLearn?**
- 5. What are the criticisms and problems that users encounter on OpenLearn?**
- 6. What are different users' needs and interests?**

All sub-questions were answered first and then synthesised into responses to the main questions (meaning that all sub-questions helped answer both main questions as explained in detail in previous sections).

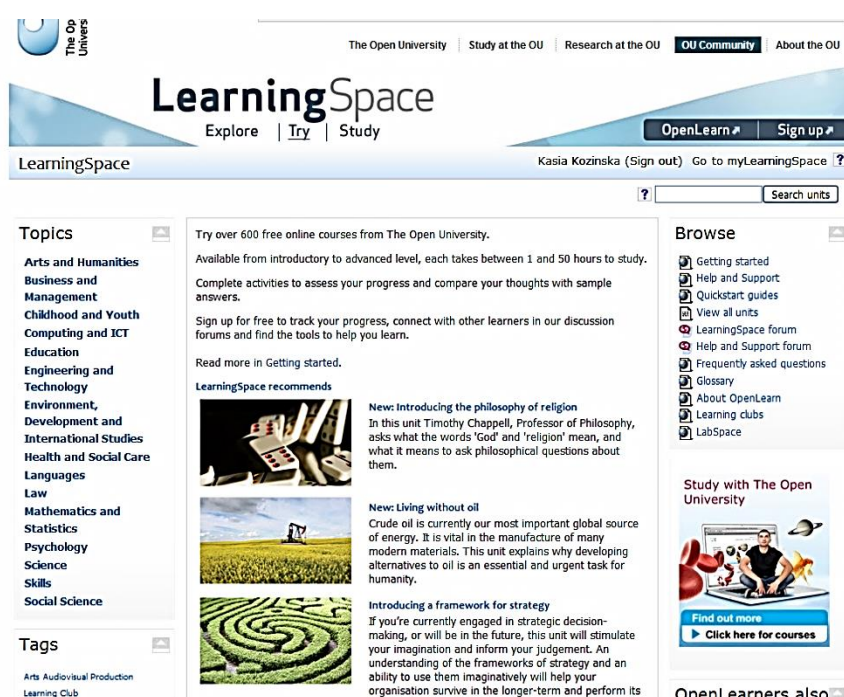
5.4.1.2. Description of the research site environment and the rationale for the selection of OpenLearn

OpenLearn, accessible at <<http://www.open.edu/openlearn/>> (OU, 2013) and at the time of conducting the study at <<http://openlearn.open.ac.uk/>> (OU, 2010-2012), is an Open Educational Resources initiative of The Open University, UK. It was launched in 2006 with the support of the Hewlett Foundation with the primary objective of making Open University learning courses and materials available openly and freely. Providing ‘free learning resources from The Open University’ (OU, 2010-2012), it is described by the OU as facilitating:

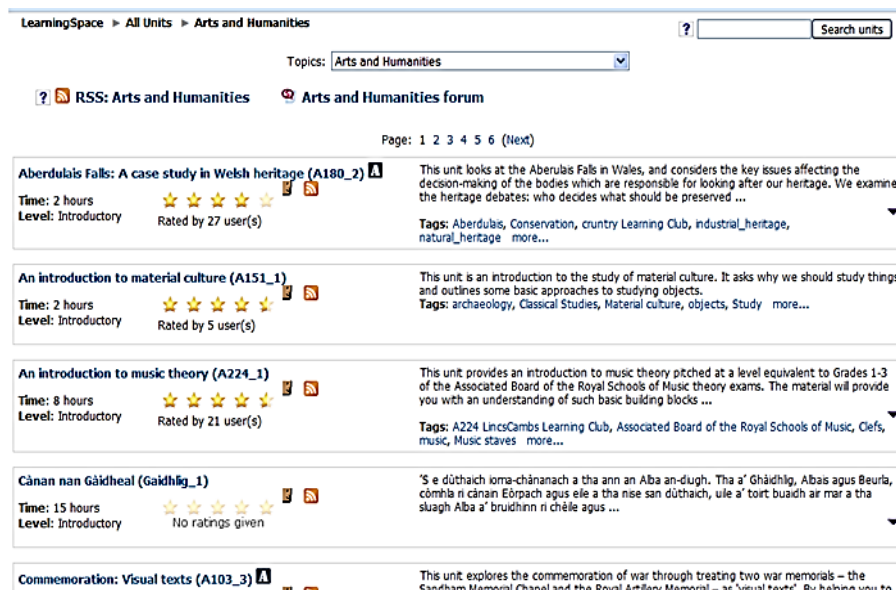
‘online learning that is open to anyone, anywhere in the world using materials taken from Open University courses. And it is completely free to use...instead of attending classes, you study online in the LearningSpace, using materials that have been specially designed for distance learning’ (OU, 2010-2012).

Running on Moodle as an open-source virtual learning environment (VLE), OpenLearn is divided into LearningSpace and LabSpace. the first section aimed at learners containing ‘hundreds of free study units, each with a discussion forum [where you can] study independently at your own pace or join a group [e.g. a learning club] and use the free learning tools to work with others’ (OU, 2010-2012). Thus it was mainly on LearningSpace that virtual output was collected and participants for this case study selected. Learning units on LearningSpace are grouped by subject area under ‘Topics’ (screenshot 1). Users

can also access units and learning clubs through Tags via the main site. Units can be browsed and chosen based on descriptions of the content, estimated completion time and level of difficulty listed (screenshot 2). Users can access the general LearningSpace forum, Help and Support forum, Frequently asked questions forum, Glossary, 'Using Learning Tools' and 'Learning Clubs' guides via direct links.



Screenshot 1. OpenLearn LearningSpace Welcome Screen (2012) (OU, 2010-2012)



Screenshot 2. OpenLearn All Units Screen: Arts and Humanities Forum (2012)
(OU, 2010-2012)

There were two main reasons for selecting OpenLearn:

- (1) its scale and abundance of learning material, opportunities and tools, e.g. 75,000 users registered on OpenLearn in the first 18 months after the launch, its 10-millionth visitor in January 2010 (OU, 2010-2012), and 600 learning units at the time of conducting the pilot (Spring 2010).

One of the key objectives of the thesis was to understand different users' motivations for using different features. Therefore it was important to select OER that would vary between them and have sufficient features and users to provide relevant environments for sampling of diverse participants or output collection. The provision of socio-collaborative tools also implied the potential to support more social ways of learning.

- (2) it offered a straightforward route to negotiating access to potential study participants.

The route for negotiating access was clear as all users who had registered on OpenLearn and had ticked a box allowing The Open University to contact them for research purposes could be approached via e-mail addresses they had provided the OU with, which seemed ethical and time efficient.

5.4.1.3. Ethics, privacy and confidentiality on OpenLearn

For ethical reasons, as suggested by the Open University Research Ethics Committee who approved this project, all participant information used in the OpenLearn study was anonymised and only quotes from interviews were used and not quotes from the output gathered (also no screenshots of discussion forums, profiles, learning journals or clubs were used). This was done so that individuals could not be identified and in order to respect their privacy, especially given that some of them did not know their output would be used in a research study or could not remember registering or ticking any boxes. One user e-mailed with an invitation to participate expressed surprise at being contacted as she did not remember agreeing to be contacted for research purposes. The output was thus only used for thematic analysis.

5.4.1.4. Sampling participants for interviews and output

The experiences of the pilot, described in the next section, informed the design of the main OpenLearn study, in which data was gathered through:

- (1) conducting remote semi-structured interviews and
- (2) collecting virtual output on OpenLearn with elements of indirect observation.

Forums of learning units, clubs and subjects were initially browsed to see visible posts, journals and profiles. User activities were observed before shortlisting a representative group in terms of (different) subject interests, ages, genders, locations and abilities (as far as these could be established from the information in the posts). The target was twelve in-depth interviews (which reflected the number of subjects on LearningSpace in spring 2010 upon commencing the study) with a balanced male-female sample or those with visible and private profiles. After the pilot response rate of 6 out of 39 invited, 50 users were listed hoping for higher chances of response also through filtering through the most recent posts. User names were checked against those who had agreed to be contacted for research purposes and only those were sent e-mail invitations with information and consent forms. Telephone interviews were conducted with seven users. Following the same sampling scenario another set of 42 invitations was sent resulting in four more interviews. 18 interviews were conducted with OpenLearn users, including one pilot interview with a colleague from OLnet who was familiar with and a user of OpenLearn.

Five other conversations with OpenLearn team and OU staff related to the research context and OpenLearn project goals were used as material to aid data interpretation.

The main study output gathered consisted of 353 posts from 153 users, and eleven visible user profiles (six male and five female users) containing six visible learning journals (of four female and two male learners). The users were interested in history, arts, archaeology, psychology, law, environment, maths, chemistry, business studies, software development and study skills.

5.4.1.5. Thematic output analysis

The objective was to extract themes and ‘tell a story’ (Preece et al., 2002), describing general trends with examples from the activities of individuals but without making them identifiable. The process of extracting themes was conducted according to the same scenario used to analyse interview data, with the exception of extracting quotes. Notes made during activities’ observation (used as ‘data displays’) supported data interpretation. Output was copied and pasted into office documents organised by content type (e.g. posts from forums or journals), and stored electronically and as print-outs.

5.4.2. Pilot study

5.4.2.1. Purpose, focus, questions

The pilot was conducted to inform the thematic direction of further research and test the methods chosen. It was used to produce the first-year doctoral research probationary review report and a peer-reviewed conference paper (Kozinska et al., 2011). Its focus was on investigating learners' motivations for interacting with other registered users on OpenLearn and on identifying the offline and online factors that might enhance or impede these interactions.

Building upon the findings of the OpenLearn Research Report 2006-2008 (McAndrew et al., 2009), the decision was made to focus on social learners as those '[who] explore tools, connect with other people and construct their own interpretations' (McAndrew et al., 2009:61). In the report social learners were identified as one of the three types of OpenLearn users beside those described as voluntary learners, preferring structured, individual and assessed learning, and bounce visitors. Connecting with other users involves communication and interaction. Communication skills are named as transversal 'key competences useful in professional life [alongside] organisational skills, the ability to work with others, problem solving, risk assessment and decision taking' (Council of the European Union, 2009:3).

To understand what drives social interactions and collaboration the following question and four sub-questions were formulated:

What motivates registered users to engage in socio-collaborative learning practices on Open Learn?

S1. What are the main purposes of user involvement in learning clubs and discussion forums?

S2. How do users reflect on their motivations for learning in their learning journals?

S3. Is there a relationship between users' main topic interest areas or learning unit design and socio-collaborative engagement?

S4. What modes of collaboration can be identified among registered users of OpenLearn?

5.4.2.2. Theoretical Framework

Out of the theories described in the literature section some, selected as relevant to self-driven learning around interactions, were used to support data analysis and interpretation. These are: Vygotsky's SCAT (1978) because of the emphasis on dialogue and environment interactions in influencing learning, adult learning (andragogical) theories stressing interactions, situations, resources, values and self-fulfilment (Lindeman, 1926; Knowles, 1973), and – as relevant to technology-enhanced participation – the RTL framework (Preece & Shneiderman, 2009), Kreijns et al. (2003), Makriyannis and De Liddo (2010)

and Ala-Mutka's (2010) claims.

5.4.2.3. Two-phase approach

Due to the study's purpose to serve as a pilot, test the strategies, e.g. sampling, questions, and get used to the OpenLearn environment, a qualitative research strategy was chosen '[as good] to familiarize oneself with a setting' (Silverman, 2000:9). The approach was purposeful in line with aiming to gain a 'feel' for the main themes and types of learners and 'common belief that [qualitative methods] can provide a 'deeper' understanding of social phenomena than would be obtained from purely quantitative data' (Silverman, 2000:8).

The goals and context of the study on OpenLearn, where human users interact with learning content and other humans through networked technology in order to learn, determined the choice of methods from educational research and HCI and conducting the study in two phases.

Observation generally 'involves watching and listening to users' (Preece, Rogers, Sharp, 2002:359). In phase one posts produced by users rather than their real-time interactions were read, hoping they would reveal some reasons for posting on forums, creating user profiles or joining clubs. The approach had thus some elements of 'indirect observation: tracking users' activities' (Preece et al., 2002:377) but instead of diaries with 'a record of what users did, when they did it, and what they thought about their interactions with the technology' (Preece et al., 2002:377) output was collected to see what was posted, when and

possibly why. The difference between using diaries as suggested by Preece et al. (2002) and collecting output consists in users' awareness: in this pilot users were not aware that their output might be used in research. As Preece et al. notice 'an advantage of logging user activity is that it is unobtrusive, but this also raises ethical concerns that need careful consideration' (2002:378). It could be argued that by registering on OpenLearn users had agreed to the site's privacy policy, hence knew that their data might be used to improve the service. However, since, as mentioned, some did not even remember registering, all data was anonymised to respect their privacy.

Output collection was triangulated with interviews in the second phase to give participants a chance to interpret their own social worlds in line with interpretivist principles. It is also because OER users are influenced by factors from online and offline environments (Preece, 2009) so data was gathered online and offline to ascertain the various influences on users' learning more comprehensively.

The sampling and scale of the study were determined based on the feasibility and resources available. My previous experience of using educational and textual research methods also influenced the methodological approach confirming that researchers can have 'powerful, and often under-recognised influence on their research and their findings' (Blaxter et al., 2001:82), although the wish was to remain objective.

Data was gathered from 57 profiles of users with 'learner' roles and their

journals, eight learning clubs and forums, and one subject forum, with the longest discussion thread of over 30 posts.

Dozens of learning units available in each subject area, organised by topic, level (from introductory to Masters), and varying in duration from two to 100 learning hours were browsed through. To obtain a representative sample of data the initial idea was to gather output produced by users pursuing learning units of varying levels from each subject area. The focus, however, shifted towards learning clubs instead of learning units mainly because of the numbers - 600 units as opposed to about 91 learning clubs, the latter being smaller thus more suitable to the scope of the pilot. Secondly, being in a club implied some sort of willingness to belong or interact within a group rather than learn independently. All learning club forums were accessed to select the ones with at least a couple of discussion threads, selecting those understandable.

The first stage of analysis consisted of looking at the data and reading through the posts gathered to see if any patterns could be observed, a technique recommended by Preece et al. (2002). Data was then analysed in a descriptive way – reviewed ‘to synthesise and identify key themes and make collection [and also] record the themes in a coherent yet flexible form, with examples’ (Preece et al., 2002:380).

Semi-structured interviews in phase two were recorded and conducted telephonically with five participants and on OU premises with one participant who turned out to be an OU employee. Additionally the questions were piloted

in a conversation with an OLnet colleague which helped design the interview guide, reminded me of the importance of listening-question-asking-balance and helped rehearse the recommended scenario of introduction, warm-up, main part, cool-off and closing (Robson, 1993).

In selecting interviewees the main criterion was connecting with others through posting on forums, belonging to a club or making one's profile visible. Only two users responded to the initial set of invitations, following which another set of users was selected from among those who had posted within a few weeks from the time of recruiting. This approach proved more successful and four others were recruited. In total six participants were interviewed out of 39 invited. Statistically just over 15% response might not seem high, however, the sampling was conducted with the objective of representativeness in the sense of users' diversity of mainly interests and needs.

All interviews were analysed using the Miles and Huberman (1994) framework for thematic analysis. Three were transcribed fully and three others analysed at first level already from listening with the intention to shorten the 'data display' process, after having 'warmed up' sufficiently cognitively to conduct such analysis without the stage of transcription.

5.4.2.4. Findings of the pilot: via sub-questions to answering the main question

The findings are laid out in the form of answers to questions: progressing from

sub-questions onto their synthesis into the answer to the main question. The sub-questions were not answered chronologically but in the order dictated by what was gradually emerging from the data analysed.

Sub-question 1: What are the main purposes of user involvement in learning clubs and discussion forums?

The purposes of involvement in Learning Clubs (LC) and discussion forums can either be (subject)-specific or general. Specific interactions are linked to field- or course-related matters connected to the focus of a given club or forum, their purposes being knowledge or skills gaining or development, e.g. exchange of expertise on language learning within a language LC or on programming on the IT forum.

Using Kreijns et al. (2003) distinction between cognitive and affective factors in interactions most such interactions are cognitive in nature. Their purposes are: to recommend or seek resources, e.g. specialist forums, book authors; to exchange feedback, e.g. on essays; to discuss exam results (implying use by OU students); or to discuss technical issues, e.g. on navigating the website.

General interactions relate to broader matters and learning support, their purposes being seeking and giving support linked to developing generic skills, e.g. interpersonal communication, across different forums and clubs. They are pursued on a more affective, social or emotional level (Kreijns et al., 2003),

where examples of reasons for involvement are: (wanting) to share achievements, experiences, goals, plans, fears, worries and motivations for joining OpenLearn or clubs. Furthermore, the purposes of involvement in interactions are: to reflect on one's learning and to encourage others to persevere despite previous failures, e.g. through writing that learning what one does not know might be one of the most valuable lessons one can learn. Finally, users express their wish of connecting with individuals sharing similar interests (for example by writing that it would be lovely to chat to other users who, like oneself, [are interested in...]) also outside of the OpenLearn context, e.g. via e-mail (by posting one's e-mail address).

As one interviewee put it, he interacts with others 'to understand whatever people are feeling about the actual work that we're doing' and to get ideas that might help him and guide him in the OU course pursued:

'[interacting with others] may help you find your way through answering a particular question or dealing with a particular situation...you've got to rely on distance means of finding things out so that anything that allows you to get ideas about how to progress in the course is welcome' (M).

Emoticons and capitals were used more frequently in such posts, as if to compensate for the limitations of the written text communication channel. The analysis of an active discussion thread in one club showed participants' attempts to create an affective structure within the group potentially in preparation for task-related interactions (see Kreijns et al. (2003)). The name of

the thread - 'introduce yourself' – signalled its function, manifested in users introducing themselves, wishing others luck, or saying that they were looking forward to working and socialising with others.

Sub-questions 4 and 2: What modes of collaboration can be identified among registered users of OpenLearn? How do users reflect on their motivations for learning in their learning journals?

There were interviewees who described themselves as browsers, perceiving their own contributions negatively, as 'time-wasting' or 'ego-driven', although there was evidence to suggest in at least one forum (the creative writing club) that an interviewee who perceived himself as a browser was leading discussions.

Modes of interaction among the users studied were ascertained as more social, based around written asynchronous conversations rather than collaborative as resulting in co-creating projects. In some cases users revealed more details about themselves gradually as they posted more or related to the output produced by others with similar backgrounds, e.g. responded to or quoted from their posts, as evidenced in a discussion thread from the Creative Writing LC. This implies a progress in roles as in the RTL framework (Preece & Shneiderman, 2009), motivated by (gradually developing a sense of) trust, belonging or reciprocity, or by positive feedback from other participants, if linked to the work of Makriyannis & De Liddo (2010). Sometimes more subject-specific discussions entailed a more advanced mode of user involvement in the

sense that more questions were asked that were more detailed and evolved towards conclusions on a matter.

None of the interviewees acknowledged using learning journals as they did not find it useful, said it was 'not their personality' or had to do it in the past and struggled. One interviewee said:

'It's not something that comes naturally to me...I don't really see the benefit of doing it' (P).

Based on the output from the ten visible journals examined, however, reflections on learning motivations could be grouped into more specific, task-driven ones, or more general and personal. The first ones related to tasks within units where users were prompted to describe their learning-unit related activities or post some of their work e.g. essays. The more personal ones contained reflections on learning on OpenLearn or with the OU, describing problems faced and proposed solutions, e.g. users writing that they needed to get more organised. There were also descriptions of experiences with using tools or users motivating themselves, e.g. through writing that they knew they could achieve anything they set their mind to. The use of emoticons was observed in a few journals beside text.

Apart from learning journals profiles also emerged as spaces in which users reflected on their learning and motivations for using OpenLearn. Descriptions and reflections contained in profiles were either more formal, subject-related,

and were used to share information about learners' interests, activities, and factual information such as location, profession, age, and education; or they were more personal. The more personal descriptions and reflections mentioned family, hobbies, reasons for joining OpenLearn, hopes, and reflections, e.g. a user wrote that they had a strong sense of values and would like to have a deeper understanding of the world. More personal profiles contained pictures, emoticons, affective statements, e.g. writing that one loved to learn, or links to learner Websites or e-mail addresses. Such profiles also contained statements of users welcoming others and encouraging to be contacted, e.g. by writing that any suggestions would be welcomed gratefully. The function that the profile fulfils, then, depends on the user's intentions.

Sub-question 3: Is there a relationship between users' main topic interest areas or learning unit design and socio-collaborative engagement?

Two types of links between users' main topic interest areas and socio-collaborative engagement were ascertained: users interact because they have confidence and expertise or because they are pursuing something new, seeking advice and support from others. While both types are interested, some share their expertise and lend support and others seek them. As one interviewee who perceived himself as an expert in the area discussed said:

‘when somebody asks questions you think ‘I know the answer to that’, you get into a debate about whether the other answers are correct or not [wanting to be right]’ (P).

In relation to learning unit design and features available in clubs, profiles and forums, a relationship was perceived, based both on the interviews and output data, between interactions and usability and sociability factors discussed in the RTL framework (Preece & Shneiderman, 2009). If features are visible, navigation paths clear, tools easy to use and support available in FAQ links or guides, users feel more confident and encouraged to use them. One user, conversely, expressed a wish for more advanced rather than basic tools, e.g. search facilities:

‘I always feel that...the search facilities seem to be pretty basic, I think a more advanced search facility would be really useful’ (M).

This user thought the basic search facilities made it harder for him to find discussions related to things of interest. Forums proved to be the most popular places for interactions while videoconferencing features were not used by anyone, reason being simply, as one user put it, ‘not having looked at them’.

The site’s usability is perceived differently by users depending on their skills and preferences: one described its organisation as ‘good in terms of supporting people’ and another as quite hard to navigate even despite his technological background. Some tools are not used on OpenLearn by users who have to use them within their formal OU courses. For example, FAQ and glossary were mentioned by a participant:

‘I have occasionally found what I wanted but obviously asking a question

others have asked before' (P).

The level of difficulty is a factor influencing the use of some tools. For example, an interviewee mentioned not using knowledge mapping because of the ease of the assignments, and that he might use the tools if the tasks get more complex or longer.

Other users also influence interactions, e.g. not getting a reply on a forum acts as discouragement. One interviewee mentioned the 'response rate' to his forum posts was two out of twenty. Moderators deleting links appeared 'authoritarian' to one interviewee who mentioned that a link to a book he published was deleted as it might have been perceived as advertising. The ease of interacting on forums is perceived as an encouraging factor, as one user said:

'you don't have to know the person, you can just ask the question and get an answer' (S).

The use of OpenLearn in general was linked to users enrolling in an OU course, with some learners describing themselves as 'encouraged' or 'prompted' to explore OpenLearn by the OU. Generally the study's participants wished for more visible profiles, more forum activity and contributions from other learners, e.g. one interviewee mentioned only about one quarter of all profiles he tried to access were visible.

Main question: What motivates registered users to engage in socio-collaborative learning practices on Open Learn?

The main identified purposes of socio-collaborative learning practices on OpenLearn in the pilot study (through communicating on, joining, creating and observing forums, clubs and profiles) are:

- **To share or seek expertise** – these interactions are more cognitively focused and manifested in actions related to specific units, problems or topics. Such interactions are pursued more formally, e.g. without emoticons. A theme that recurred was seeking opinions about specific formal OU courses users considered doing or improve within already pursued courses.
- **To give or seek support** – here interactions are more affective, relating to sociability and emotions, and manifested in actions linked to more general and personal things like seeking inspiration or escaping isolation as an ‘inevitable part of distance learning’, to quote an interviewee.
- **Mixed** - some actions’ purposes are harder to assign to one group so could be described as mixed e.g. interacting to maintain mental stimulation by more senior learners, communicating to get used to the system before starting an OU course, or interacting around location, national culture and language. Such interactions can relate both to specific skills, e.g. language, and more support-related issues, e.g. of cultural identity.

In all types of interactions among the registered users studied interest and enjoyment emerged as strong motivators, along with appreciation of and passion for learning in general, and belief in the importance of communication and interaction with other learners. In the words of an interviewee:

‘It’s really just the enjoying of the learning that’s important rather than a qualification, I don’t need it for any career advancement’ (P).

Another described his use of OpenLearn saying:

‘I respond to anything that interests me’ (S).

These confirmed the expectations linked to adult and lifelong learning (Lindeman, 1926; Knowles, 1973) based on which interest and enjoyment drive adult learners’ learning. Although participants’ learning areas were sometimes closely related to their backgrounds, none of them needed the interactions directly to advance their careers and only one related using OpenLearn in general to raising qualifications.

A wish to escape isolation also motivated interactions with others showing that users learning around OER face similar issues to ODL learners, e.g. isolation as discussed by Dzakiria (2008).

The findings are consistent with the claims of the Reader-to-Leader framework according to which altruism influenced ‘technology-mediated social

participation' (Preece & Shneiderman, 2009:13). Altruism is understood as 'a desire to support the community, ...give back, willingness to reciprocate' (2009:23) or 'a sense of belonging based on recognition of familiar people and activities' (2009:18). In this context altruism influences socio-collaborative learning on OpenLearn.

Building upon the theoretical framework used in the pilot (Knowles, 1973; Lindeman, 1926; Vygotsky, 1978; Preece & Shneiderman, 2009; Kreijns et al., 2003; Makriyannis & De Liddo, 2010; Ala-Mutka, 2010) and based on what emerged in the analysis of data gathered, the different motivations for learner interactions ascertained in this study were categorised and summarized in Table 2 entitled 'Motivations for socio-collaborative learning on OpenLearn'.

Table 2. Motivations for socio-collaborative learning on OpenLearn

Types of interactions	Categories of Motivation	What motivates socio-collaborative learning
General, informal, affective	General/ support-related	Belonging, identity, (escaping) isolation, confidence, self-expression
Specific, formal, cognitive	Specific/ expertise-related	Knowledge, subject competence, intellectual curiosity, ambition, specialist interest, feedback, recognition, desire to gain a specific skill or solve problems, level of difficulty (both low and high)
Mixed	Mixed	Enjoyment of learning, appreciation of interactions in learning, interest, wish of change, challenge, altruism, reciprocity, availability and ease of use of social features, others' visible, relevant and interesting contributions

Other factors established as significantly influencing learning in general and interactions on OpenLearn are: educational, professional, and domestic background and situation, time, flexibility and quality of materials linked to the ODL context of the OU. One interviewee, for instance, avoids collaboration online after years of having to collaborate while working in a 'big company',

valuing independent learning, albeit still seeking opportunities to discuss ideas. Participants with some time to spare, e.g. because of retirement or simply leisure, all wanted to use it for learning. Their passion for learning appeared linked to their education to degree level, their children's education, or, conversely, previously having lacked opportunities for education and wanting to 'catch up', pursue an ambition that could not have been realised earlier due to life circumstances. A wish for some sort of change and challenge emerged as driving some OpenLearn learners, especially those pursuing OU courses too, interactions emerging as helping in dealing with these changes.

5.4.2.5. Pilot vs. main study: initial discussion

Because OpenLearn provides socio-collaborative spaces supporting open, free and flexible learning around interactions, research on this OER was continued as part of the main study phase.

Additionally, to understand learning with OER that do not provide socio-collaborative tools, other OER were included.

One cannot generalize from the pilot's findings due to its small scale but the evidence gathered was sufficient to use the findings to give direction to further studies. The findings are relevant within the context of OpenLearn and applicable to other OER that are similar or that are used by similar users. This is due to the diverse sampling strategy: those whose output was examined and interviewees (all male) represented various stages and lifestyles, showcasing

different motivations not only between themselves but within themselves, depending on their goals and resources. Also, triangulated methods contributed to strengthening the study's validity and reliability.

As both data collection and analysis methods proved efficient and relevant, fitting within the thesis purpose, research focus and participant profile, the decision was made to continue using them throughout the study, except that output was not gathered on OER not providing relevant tools, e.g. forums from which it could be collected as written text.

Results of the pilot indicated that, while learners have their individual motivations for expertise- and support-linked interactions they are also influenced by various online and offline factors. Therefore attention was given to contextual factors and the influence of other users on one's learning and interactions throughout all case studies, related to the claims of Makriyannis and De Liddo (2010), who stressed that whether and how others (within a community) respond to users' activities influences whether and how individuals participate online.

The results also showed similarities to previous research (Kozinska, 2009) in which motivation for learning within blended communities was ascertained as something dynamic and multidimensional. In this pilot, too, various elements that could change over time turned out to influence learners, e.g. one's time availability or educational situation/ role.

Users' involvement in support-related interactions after moving to a different country, as seen on the example of one Italian interviewee who had moved to the UK, showed the need for spaces that could support intercultural dialogue and observation. This suggested the potential of OpenLearn as an OER to help people cope with change and diversity; something that was paid attention to in the main study.

Interactions motivated by altruism, recognition, and reciprocity are, for some, a form of mutual learner support, e.g. obtaining feedback from others as an alternative to formal or quantitative assessment. The role of feedback and (the lack of) assessment and evaluation is reflected upon further.

OpenLearn was designed to facilitate learning for those who would otherwise not be able to learn due to various circumstances, e.g. being housebound, fulfilling the OU social justice mission but on an even grander scale than the OU because of OpenLearn's global availability free-of-charge.

For some OpenLearn plays a key role, helping them find a (new) purpose, e.g. as in the case of the interviewee after a stroke who wished for a degree, or as with the interviewee who used OpenLearn alongside studying for an OU course to enable him to 'catch up with his children'. Finally it was also used to pursue hobbies, as in the case of the interviewee who participated in creative writing activities.

All interviewees involved in the pilot study perceived the possibility to interact with others positively, being aware of the advantages even if they did not participate in such actions very often and their main reason for using

OpenLearn was the course content.

Motivations for socio-collaborative learning were ascertained as linked to motivations for learning on OpenLearn in general and to studying with the OU.

Both variety of content and simplicity of use and navigation emerged as important. A wide spectrum of subjects should continue to be provided on OpenLearn as users studied a range of different courses and various interests were observed among individual users. At the same time the users wished for simplicity of navigation and tools to locate and use content.

The findings of the pilot are discussed further in the next section in the context of reflecting upon the findings of the main OpenLearn study.

5.4.3. Findings of the main study

As the objective was to show a detailed process of arriving at the answers, the six sub-questions are presented first because detailed responses to them formed a basis to answering the main research questions A and B. The form and style of presenting the findings to the main questions and the responses to the sub-questions differ. The sub-questions present more detailed descriptions, examples, quotes and items organised into lists, grouped in categories or shown in tables. The findings to the main questions are also interpreted, where relevant, with literature discussed in the first three chapters of the thesis.

**5.4.3.1. Sub-question 1: What are the goals (purposes)
of and reasons for learning and interacting on
OpenLearn?**

a) What are the goals (purposes) of and reasons for learning on OpenLearn?

The purposes established are as follows:

(1) OU-studies-linked purposes:

- to decide if, why, and what OU course to study e.g. using forums ‘for enquiries’, to see other opinions; as one interviewee stated: ‘I’m trying to decide which degree to do basically’;
- to prepare for one’s course upon becoming OU students, e.g. reading through units;
- to explore OpenLearn after becoming OU students: ‘have a little ‘lookaround’’;
- to support work-related learning with the OU, ‘in conjunction with the course’;
- to supplement studies with other universities, e.g. an interviewee studying with The Arab OU used OpenLearn materials ‘just to enrich [his] information [sources]’;
- to supplement formal learning with OU courses, e.g. for a degree or ‘in-between courses’.

Participants could be divided into those whose aim was completing a degree with the OU and the rest. Only three out of eleven users interviewed turned out *not* to have been OU students. OU-linked users were familiar with the OU study

system.

(2) OpenLearn-related purposes:

- to gain knowledge, satiate interest, e.g. in a wider subject area like arts: 'I don't need it for anything at work, I've always found... interesting and I wanted to do...to learn more about it really' or a more specific topic, e.g. a particular museum;
- to develop a skill, e.g. foreign language or web development, where social spaces were appreciated by users because of possibilities of discussions, exchanging ideas, and recommending resources, e.g. links, authors, etc.;
- to browse and explore: 'just to investigate the subject, to see if I would be interested in it';
- to explore the design of OpenLearn as a learning environment (by a web and learning designer user);
- to assemble learning resources 'to go', i.e. download materials to learn on holidays (if no Internet access anticipated).

The main reason for learning with OpenLearn was established as wanting to learn. A common theme among participants was learning because they liked it and viewed it as worthwhile. Intrinsic interest, e.g. in a subject, was established among all interviewees even if they used OpenLearn to support their formal learning. The majority used OpenLearn because of its link to the OU, e.g. because of wanting an OU degree, trusting the quality and effectiveness of OU teaching and learning resources. Sometimes a direct cause of checking on OpenLearn was feeling encouraged by a BBC programme. A key factor was the possibility of flexible and open use from home, especially valued by the housebound, e.g. sick,

disabled or those with caring duties, and those with family or work obligations. Reasons given for using OpenLearn are a combination of more than one factor, e.g. willingness to learn and flexibility: 'the course looked really quite exciting [and] I could do it when I wanted to'. Available time, sometimes after an unexpected change, e.g. through becoming housebound after a stroke or retiring, was a reason to use OpenLearn. One user chose a unit after being enticed by its name (Brain and Behaviour): 'it just sounded so fascinating...'

This second part of the question deals with the purposes and goals of interacting on OpenLearn and reasons for doing it in response to the question:

- b) What are the goals (purposes) of and reasons for interacting on OpenLearn? (through forums, learning clubs, via profiles, journals, others)

According to the classification developed in the pilot the purposes of user interactions with other users and with tools on OpenLearn can be divided into expertise-linked (happening within the cognitive dimension) or support-linked (socio-emotional). Using this classification the purposes of user interactions ascertained in the main study were also mainly expertise-related and support-related, with some that could be described as mixed. Learning around interactions was referred to as socio-collaborative learning in the pilot and the two are used in the thesis as synonyms.

Purposes of (interactions during) socio-collaborative learning – posting on discussion forums, joining learning clubs, using learning journals, making

learner profiles visible - were established as follows:

(1) Expertise-related interaction purposes – manifested through interactions happening on a more cognitive level, pursued using more formal language:

- To seek expertise and receive knowledge, e.g. through asking questions proactively or reading the posts of others searching for answers. One interviewee's conclusion on forums was that 'you can go there any time and pick up something that you may otherwise not be able to do'.
- To share expertise and give knowledge, e.g. through answering questions, commenting and correcting others. One user said that sharing his expertise on computing was his main purpose while another interviewee, after being asked about her forum contributions, said 'Somebody asked a question and I gave a reply'.
- Mixed (to seek and share), e.g. through getting involved in solving problems, discussions, seeking learning buddies, e.g. some users were looking for tandem partners to learn a foreign language.

(2) Support-related interaction purposes – manifested through interactions happening on a more social and emotional level pursued

through more informal, general, affective language with the expressive and contact-sustaining functions:

- To seek support, e.g. seek reassurance,
- To give support, e.g. encourage others, answer their questions,
- Mixed (exchange support), e.g. discuss learning in general, introduce oneself, and so 'keep themselves motivated'.

Apart from the above results that confirmed the findings of the pilot, especially users connecting with others pursuing similar interests, forums emerged as spaces where learning organization and study skills were discussed, e.g. thesis organization, learning schedules, differences between courses, etc. Attempts to connect outside OpenLearn, e.g. on social networking sites, were observed in the main study. Those who posted in the few journals visible reflected on their learning, problems and objectives.

Interactions are either initiated by users proactively or pursued in response to the actions of others, reactively, depending not only on users' purposes and goals but on a variety of factors that are discussed in the response to sub-question 2.

Users interact because:

- (1) They want to interact because they enjoy the exchanges with other users, preferring learning through sociability, discussions and collaborative

problem-solving, believing that interactions enhance learning (intrinsically-driven interactions);

(2) They hope to benefit from interacting believing it might help them achieve their goals, doing it strategically (goal-driven interactions);

(3) They can – the opportunity to interact is provided - interacting simply because it is possible on OpenLearn, e.g. there is a forum on the course so users use it almost automatically, naturally (opportunistic interactions).

5.4.3.2. Sub-question 2: How does the online and offline context influence learning and socio-collaborative interactions on OpenLearn?

The following (wider contextual) factors influence learning with OpenLearn:

(1) One's main life role, especially in relation to educational situation, and time.

A user's main role in terms of what they spend most time doing contributes to if and how they spend time on or interact with OpenLearn, e.g. caring for a housebound relative full-time:

'I was a full-time professional but my daughter became ill and I had to be at home to meet her care needs...and it [learning with OpenLearn] gave me something to kind of validate my life' (PR).

A connection could be observed between being in situations resulting in having plenty of time and staying at home, and dedicating much of available time to learning with OpenLearn or the OU. Life circumstances are linked to changes in approach to learning triggered by a sudden availability of time, as an interviewee after a stroke reported:

‘I had a stroke two and a half years ago...got a computer...learnt how to use it...I know I am going to learn because I want to’ (J).

Having the possibility of learning at work is significant, too, as an interviewee who used OL for 15 hours per week concluded:

‘I am lucky because I work at an academic institution so I have the time to do this during my working day’ (JN).

(2) Catching up on learning/ learning to catch up (linked to life changes)

Experienced or desired changes in life circumstances, e.g. retirement, influence one’s use of OpenLearn, resulting in catching-up, having finally found the time or will.

(3) General learning preferences

Preferences influence how one learns: those who like talking to others interact and those who prefer structured individual activities work alone. Some develop

habits or particular practices, e.g. always download units or print them off, using them like books. In the words of an interviewee who reported occasional participation in forums: 'I like to walk alone' (JN). To juxtapose it with a quote from an interviewee who was a forum enthusiast:

'they [forums] are a wonderful resource because they typify really the open-source mentality because people who are experts are also members...and you post a question and somebody who's an expert in their field gives you an answer, and you can follow up, you can find out more about it...absolutely unbelievable really...' (B).

(4) History or intention of learning with the OU: trust, familiarity, habit

Those who have previously done courses with the OU become familiar with how the materials are organized on both the OU and OpenLearn sites. Users get used to the system and continue: '[I am] a student with the OU, serially'. Having studied with the OU helps develop trust for the organization and OpenLearn as their OER. Those considering OU courses search for specific things strategically.

(5) Doing a degree with another institution, e.g. an interviewee who studied with The Arab OU said he used OpenLearn 'just to enrich [his] information [sources]' (see sub-question 1a for goals)

(6) Duration/ length of courses, units and modules

What units a user chooses depends not only on their content but duration. For example, one user said he liked and chose units he could complete in one afternoon, so went for the shorter, four-hour units rather than longer, e.g. fifteen-hour ones even if the latter looked interesting.

(7) Interests and hobbies

Interests determine the content searched for and users connected with, users seeking the relevant, the interesting and the similar.

(8) Previous education vs. the Open and Distance Learning context of OpenLearn

Some users educated traditionally find the ODL experience straightforward: 'it's very different to being in the classroom... I think I actually prefer it' (JN). All interviewees were above 30 so did not grow up surrounded by laptops or mobiles but none of them encountered problems adjusting to the ODL learning context of OpenLearn. They perceived learning with OpenLearn and the OU positively, not raising any issues. OpenLearn was merely a tool and they were not interested in it from the technological angle.

(9) Valuing and enjoying learning (regardless of one's education)

Interviewees' opinions about the OU, OpenLearn and learning in general were positive, showing these individuals as both valuing and enjoying learning. They

valued the OU and OpenLearn as facilitating their learning, irrespective of their level of education. One user with A-Levels was studying for a degree in humanities. She did not need a degree for work but simply enjoyed the subject, wanting to learn it for itself. Even if pursued in conjunction with formal studies, the use of OpenLearn was intrinsically motivated. A pattern observed among the study's participants was learning with OpenLearn as a way of spending time, a hobby or a passion, not wanting to stop but 'wanting to keep going' as one user put it.

In the users' own words... (on) learning on OpenLearn:

'It enriches my soul' (PR).

'I think it's a bit addictive' (JN).

'I guess one is an Open University student for life' (J).

'There's just so much [to learn] around...I like everything...I want to learn about everything and there's not enough time in one lifetime I don't think' (JN).

(10) Frequency, time and organization of learning

Those who use OpenLearn on a regular basis are more organized than those who 'dip in and out', to quote a participant, or those who do not have set times: 'I have a serendipitous life – I don't do anything regularly', and develop their routines, e.g. always checking forums. Formal students have their learning organized by the OU and can organize their use of OpenLearn around that. One user doing a degree with the OU for work-related reasons spent about fifteen

hours on studying weekly, including the use of OpenLearn: 'I'm lucky because I work in an academic institution so I have time to do this during my working day'. Another user said he studied 'a couple of hours a day, three hours a day, possibly more'. One user liked individual structured learning, although she would use forums for course and subject-related issues, so occasionally pursuing social interactions.

(11) Location and mode of use

Most interviewees prefer studying at home, on their laptop or PC, being either online or downloading materials and printing them off.

(12) Users' plans

Users' plans influence what and when they study, e.g. one interviewee said he chose to do units on a major museum and painters whose works were there before going to be better prepared, to educate himself before the visit. Another user said he would normally learn online but download things onto his laptop before departing for holidays knowing there might be problems with Internet access.

The following table presents the factors that influence socio-collaborative learning from either a sociability or usability angle, based on the RTL Framework (Preece, Shneiderman, 2009).

Table 3. Online and offline factors that encourage and impede interactions with other users and tools on OpenLearn

Factors	Encourage interactions	Impede interactions
Online	<p>Usability:</p> <ul style="list-style-type: none"> - Availability and Visibility, e.g. of tags; - Clarity, ease of use, e.g. of forums, finding it straightforward to reply; - Quick/ fast use, e.g. some tools don't take too long to use, e.g. rating can be dealt with in one click. 	<p>Usability:</p> <ul style="list-style-type: none"> - Lack of visibility (of tools), difficulties in finding features - not being able to locate tools used previously when wanting to use them again; - Using some tools or being involved in some activities is too time-consuming, e.g. writing reviews, for example one user said that if she did 'all this', she would not have the time to do the course, although she found profiles and journals interesting.

Online	<p>Sociability:</p> <ul style="list-style-type: none"> - (visible evidence of) activity, e.g. lots of other users' posts (quantity of activity); - Interesting activity (quality of activity); - Knowing other users, e.g. getting to know people interested in the same topic, subject or learning with the same unit and talking to them on forums on a regular basis; - Possibility of contacting other users pursuing the same courses. 	<p>Sociability:</p> <ul style="list-style-type: none"> - Privacy policy concerns: <i>'I would never make my profile public, I would never do that, that's just general anxiety about too much information being on a website';</i> - Lack of contributions from others, e.g. empty forums; - Not interested in some things, e.g. users don't want to read other people's learning journals: <i>'No, I'm not sure I'd really want to read somebody's learning journal, maybe if they told me that, I would do it but I haven't really found a reason for it to be honest'.</i>
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Offline	<p>Encourage interactions:</p> <ul style="list-style-type: none"> - Interest in other users' opinions, recommendations (expressed on forums): <i>'It's very very interesting to read what other people say';</i> - Seeking support, encouragement and reassurance from others; - Wanting to share expertise (altruism); - Curiosity, e.g. checking the profiles of others to see who they are, what they are learning; - Interest in a specific subject; - Liking and appreciation of learning with others, collaborative problem solving and discussions, willingness to get feedback; - Timing, e.g. beginning of a course. 	<p>Impede interactions:</p> <ul style="list-style-type: none"> - Preference for individual learning or private forums: <i>'I prefer to use private forums or email lists, that sort of thing, I don't like using public forums';</i> - Not considering it significant or necessary to interact to enhance learning; - Fear, anxiety, worries, lack of confidence. A user said she would not want to write about her problems publically to not lose faith or tell others about her weaker points: <i>'I wouldn't want to expose that kind of weakness I don't think';</i> - Not seeing the need to reflect, e.g. via a journal: <i>'no need to broadcast information about yourself to people you do not know'.</i>
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One's context and situation influence learning and interactions on OpenLearn. Especially before enrolling in an OU course individuals tend to browse rather than carry out an organized search. Time availability is linked to (shifts in) one's life circumstances. Five interviewees, some recently retired, others housebound, turned out to spend considerable amounts of time (e.g. up to four hours per day) on OpenLearn, with examples of re-defined goals such as obtaining a degree before one's 60th birthday:

'the stroke, really, gave me the time to sit down and do what I wanted...I want a degree for my 60th birthday [which would be my first degree]' (J).

Attitudes and beliefs significantly influence using OpenLearn. No participant expressed a dislike for learning.

5.4.3.3. Sub-question 3: What approaches to learning can be observed among different users of OpenLearn?

The pilot study ascertained that a user can learn independently, in more structured ways, or socio-collaboratively, depending on various factors, thus being a mixed-type learner or belonging to different categories at different times. Therefore, aiming for clarity, the question addresses approaches to learning rather than learner types. The answer is presented as a description of what was ascertained, with examples from the accounts of individual users, using two different classifications of learning approaches to enrich the

interpretation:

(1) Firstly dividing approaches into either socio-collaborative or structured (or possibly mixed), based on the OpenLearn Research Report (McAndrew et al., 2009). The word 'voluntary', used in the report to describe a learner type, was deemed potentially misleading, implying the opposite to compulsory, and replaced by 'structured' (See section 5.4.2 for more on the learner types based on McAndrew et al. (2009)).

(2) Secondly dividing learning approaches into: goal-oriented, activity-oriented or learning-oriented, based on the classification of continuing adult learners developed by Houle (in Knowles, 1973), which was used in previous research (Kozinska, 2009).

Using the socio-collaborative vs. structured learning classification, socio-collaborative learning is manifested in exchanging expertise and support through discussing issues on forums. The forum emerged as the most popular feature supporting interactions. A socio-collaborative approach can be pursued at whatever depth learners want, more on the surface or at a deeper level, for example introductions, although significant because of the connecting function, seemed rather superficial compared with reflections on life plans or family. That approach is not only a matter of preferences but particular stages, e.g. before enrolling in an OU course when users browse around trying tools, clicking on profiles, etc. This approach was also pursued strategically, e.g. for the purpose of supporting learning via discussing assignments.

What approach individuals take depends on what is available and visible, and whether there are others to interact with. For example – relating to the answer to sub-question 2 - if a user prefers to interact with others during learning but there is no activity on the discussion forum and nobody replies to their posts, they have no choice but to learn individually, in a more structured way, unless they stop learning with the OER altogether.

Working through units and activities, printing and organizing material is characteristic of the structured approach, whereas browsing and exploring was observed among those also interested in interactions, e.g. on forums. Below are some quotes on the less structured socio-collaborative versus more organised approach:

'It would be mainly just for sitting and browsing rather than an in-depth study' (PR);

'I'm not a big user really... rather just an explorer...I'll look around, I'll see what interests me... but I do contribute to some forum-type-thing set up there...people occasionally post questions and if I know the answer I'll just put the answer' (ER);

'[I am] pretty disorganized – things done in a hurry rather than methodologically doing things as I should' (ER);

'[I do all activities online and print all out to keep a record], I have a good filing system, I do not trust just e-copies' (J).

Using the goal-oriented, activity-oriented and learning-oriented learning approach(es) division, all participants could be described as learning-oriented, being motivated intrinsically primarily by their appreciation and enjoyment of learning. As those who enjoy learning on OpenLearn get involved in various tasks within units, join clubs or join discussions on forums, their learning approach could be described as activity-oriented, whether their activities are socio-collaborative or structured. Some users are goal-oriented, e.g. using OpenLearn driven by the goal of getting an OU degree:

‘[I used OpenLearn] just to investigate the subject, to see if I would be interested in it...I was interested in doing an Open University Masters in psychology...so used the OpenLearn as a starting point’ (JN).

In conclusion, most users take mixed approaches. Even the goal-oriented user learning towards an OU degree enjoyed learning as meaningful and got involved in various activities, thus being also learning- and activity-oriented. Those learning- and activity-oriented set themselves goals, too, e.g. working through units, so shorter-term goals rather than longer-term ones such as obtaining a degree.

5.4.3.4. Sub-question 4: What do users value most in learning with OpenLearn?

Users value:

- (1) Abundance and a variety of learning possibilities using interesting material and tools; the 'mixture', 'fusion' of features and the choices they give

Users value the choices available, e.g. units of different duration and level, possibilities of individual vs. social learning, spaces for reflection in journals and profiles. Choices and flexibility are especially valued by those spending plenty of time on OpenLearn. The 'collaborative bit' was valued as really 'bringing students together' and allowing users to benefit from informal feedback. Forums were seen as valuable spaces for exchanging information, explanation, sharing non-course related issues more linked to learning support and social stuff exchanges where users could relax and 'relate to life without it all having to be about the course'.

- (2) Freeness and openness, freedom and convenience, ODL

OpenLearn is openly accessible to everyone in the world to register, use materials and spaces for free, regardless of time and location, which is appreciated:

'I was looking for courses on the OU website and I found

this...[OpenLearn]...I found it very very good, in fact I could not believe that all this information was out there for free, I was very impressed' (JN).

Because there is no assessment or deadlines, users can choose what they learn, when, where and how, tailoring learning to their lifestyles, duties and preferred pace. The possibility of accessing OpenLearn remotely was particularly valued by the housebound, highlighting the social justice role of OpenLearn.

(3) OpenLearn's link to the OU and quality of resources

Among the interviewees who were also OU students appreciation was expressed for the OU as an organization providing high-quality open distance teaching. These users also trusted OpenLearn as an OER provided by the OU. The appreciation of OU learning materials was a recurring theme: 'good materials, very well organized, really well explained'.

(4) OpenLearn as helping to find meaning and pursue hobbies

Some interviewees expressed joy and gratitude about being able to learn after a change of life circumstances. For example, one user after a stroke felt that OpenLearn and the OU helped him find new meaning in life, whereas another interviewee, previously quoted, thought learning with OpenLearn had allowed her to 'validate' (PR) her life after becoming housebound. Some value the fact that they can follow their passion for a specific area on OpenLearn.

In the words of users, these are most valued on OpenLearn:

'...access to a variety of subjects...the rest has only been browsing around, nothing else really';

'...a lot of interesting things on there that interest me, it's useful for what I want to do, I can do it whenever I want';

'...you go there when you want to do it, when you have time, not when you are pressurized';

'It's free, it's massive, it's really really comprehensive and it looks like something I would trust as a source – I think The Open University has a good reputation, I would therefore trust anything that I read on that website' (JN).

5.4.3.5. Sub-question 5: What are users' main criticisms and problems on OpenLearn?

The most common criticism concerned the search facility as not displaying sufficient results leading users to relevant content. This was related to how course material is organized within OpenLearn generally, showing a wish for clear navigation paths to content that could be easily located. For one user learning material was not organized well at all: 'It seemed like a selection of topics really rather than a course'. One user wished for a more intense and lively colour scheme describing the existing LearningSpace one as 'too pale...quite restful...but practically a poor choice'. Lack of activity within clubs or forums

was criticised by users who felt it did not encourage participation (see factors impeding interactions in Table 3).

Some users expressed dissatisfaction with insufficient audio-visual material, others criticised the lack of informal assessment opportunities, and some said that not all they had been interested in could be found on OpenLearn, e.g. one user who was interested in poetry.

Below are examples of problems users experienced and how they were overcome:

- (1) Login problems: one user had forgotten his username so did not log in for a while, only returning after remembering his user name.
- (2) Insufficient time, e.g. one user advised she did not use features demanding much time, e.g. writing reviews, but went for faster options, e.g. rating units.
- (3) Not being aware of the full spectrum of courses, features and tools. Some users were not aware that certain tools or features were available, which was the main reason for not using them, again pointing to the need of making features visible, of making users aware of their existence. This issue was dealt with during interviews when users learnt about some tools but the question remains how many users there might be who use OpenLearn but are not aware of everything at their disposal. The OpenLearn newsletter could serve as a good source of news and updates but the problem is that for some it is perceived as junkmail hence not read.

- (4) Feeling apprehensive about interactions: what proved problematic for some was interacting with others because of their anxiety about privacy issues or insecurity. One user who expressed such concerns simply did not post her reflections but read the posts of others (see Table 3).
- (5) (No) access (to the Internet): one interviewee located in Africa said there wasn't always online access when he wished to use OpenLearn, a problem he could not overcome other than to wait.

5.4.3.6. Sub-question 6: What are the different users' needs and interests?

There was a whole spectrum of interests among participants, in knowledge and skills from areas such as literature, mathematics, archaeology, law, software development or even farming, showing demand for new and updated content and tools on OpenLearn. Some users pursue only units from areas that interest them, others from many different ones, but generally it is one or two related subjects that a user is particularly interested in, searching for different topics within these subjects.

Flexibility and freedom emerged as key due to various life circumstances, e.g. being housebound. The absence of assessment or deadlines is generally valued, however some users would appreciate some options of structured assessment, e.g. quizzes or tests. That depends on individual preferences and is not linked to studying with the OU.

There is demand for some support or guidance that could be delivered through clearly presented, visible, easy-to-use, relevant, quality ODL resources and/ or socio-collaborative tools, depending on one's preferences. Clarity in how to use OpenLearn is important especially to those who previously studied traditionally. Forums, visible unit titles, clear navigation paths and good search facilities were in demand. Due to demand for resource recommendations, e.g. reading lists, it seems a good idea to incorporate them in units.

There is a need for variety and diversity of subjects, topics, formats, difficulty, length, and activities available to meet different preferences and, ideally, giving users choices, e.g. on whether to make one's profile visible or whether to download material or learn online.

Overall OpenLearn ought to meet users' desires to satiate that intrinsic need of learning for its value and pleasure, observed universally among participants.

5.4.3.7. Main question A: What motivates and influences learning with OpenLearn among different users?

The following factors were established as key in motivating learning with OpenLearn:

Enjoyment of learning: What emerged in the study, confirming the pilot's findings, is the fact that participants simply enjoy the pursuit of learning with OpenLearn, having always liked learning 'from academic courses to just learning about things', as one user put it.

Knowledge, content and expertise: Users' interest in a specific topic or desire to develop a skill without having to do it for professional reasons motivate them to simply educate themselves, improve their understanding and advance in a subject area without focusing on rewards or ego.

Life changes: An interesting phenomenon that emerged in the study is what could be described as life-change driven learning, so learning related to a (sometimes sudden or unexpected) change of life circumstances which can lead to a shift in life role, obligations and time availability, as suggested by Knowles (1973) and Lindeman (1926). It is when users finally find the time that they decide to learn something they had always wanted, e.g. a language, but never got round to it due to professional or family obligations. For them learning with OpenLearn becomes a pastime sometimes helping

them re-define purposes or adjust.

Freedom (of what, when, where and how to learn): For some it is the open, free and flexible way in which OpenLearn can be used that makes them choose and continue learning with it rather than enrol in formal courses or use other resources. For some it is the option to *not* make a commitment that matters: 'it would be mainly just for sitting and browsing rather than an in-depth study', while having the choice to enrol if desired. The OU link prompts users who trust the organization, have studied or are considering studying with it, to use OpenLearn.

Qualifications and professional development: Only one interviewee who used OpenLearn was doing an OU course for professional development reasons. Some users were motivated by a wish of gaining a qualification, but not to achieve professional goals, e.g. the participant who wished a degree for his sixtieth birthday.

Possibilities of interactions: While the groups on OpenLearn do not become coherent communities, OpenLearn can be said to function as a network understood through the definition of Ala-Mutka (2010) who describes networks as providing users with the possibility of connecting with others more loosely, depending on their goals and nature of their learning activity at a given time, without necessarily developing strong identities as members of groups, e.g. OpenLearn learning clubs. One thing observed in relation to identity, however, is that those participants who had

experienced studying formally with the OU identified themselves as both OU students and OU-linked learners on OpenLearn.

High quality of OU teaching and learning materials: Relevant quality learning materials provided by the OU emerged as a significant factor in users' choosing OpenLearn.

Intellectual stimulation: Users' wishing to remain intellectually active was motivating their use of OpenLearn, e.g. among senior learners or after a stroke as a mental exercise.

Preference and appreciation of socio-collaborative learning: For those who interact, motivations for learning on OpenLearn overlap with motivations for socio-collaborative learning, mainly as far as enjoyment and appreciation of learning is concerned, alongside curiosity about specific subjects or skill. Users who interact on OpenLearn simply prefer learning socio-collaboratively, enjoy interactions and believe they can enhance their learning.

Both online and offline contextual factors play a key role in influencing users' learning and interactions on OpenLearn. One's life role at a given time is influential (meant mainly in relation to education, work, family and/ or health which are usually interlinked, e.g. a user's main role being that of a housebound learner looking after an ill relative). How users learn and interact using online features depends mainly on the availability and clarity of use of features.

5.4.3.8. Main study compared to the pilot: more comments

In the pilot study a wish for change was suggested to be important in motivating learning with OpenLearn and interactions. In the main study it was observed that learning is often driven by a change that had already happened or a process of change that had started.

Overall the main study confirmed the findings of the pilot study on the role of enjoyment, interest, time and attitude, as well as visibility and clarity of use of online tools in influencing the use of OpenLearn. Some findings were confirmed among a greater number of participants, e.g. those on enjoyment of learning in motivating learning on OpenLearn, and others observed among fewer individuals, e.g. on seeking intellectual stimulation by older learners.

Different motivations and factors that influence the learning processes and approaches can shift and be combined differently, with different intensity at various times.

The motivational framework table developed in the pilot study entitled 'Motivations for socio-collaborative learning on OpenLearn' served as a basis to produce table 4 in which the motivations were described in more detail to reflect the further findings from the main study (see table 2 for the initial descriptions in the pilot study).

Table 4. Motivations for socio-collaborative learning on OpenLearn II

Types of interactions	Categories of Motivation	What motivates socio-collaborative learning
General, informal, affective	General/ support-related	(seeking/ wanting to develop/ increase/ gain or help others gain/ develop/ increase) a sense of belonging to a community, identity (as a learner, as an OU-linked learner, member of a learning group), confidence, self-expression (of opinions, reflections), and escaping isolation
Specific, formal, cognitive	Specific/ expertise-related	(a wish/ desire to gain/ need to satiate or share) intellectual curiosity, ambition, knowledge, specialist interest, feedback, recognition, a specific skill, (solve) problems, level of difficulty (sometimes the difficult is a motivator, a challenge, sometimes it is a barrier, sometimes the ease is a motivator – it depends on the user, their level of knowledge, confidence and their attitude towards the task)
Mixed	Mixed	Enjoyment, appreciation of (belief in the value of learning) and interest in learning, enjoyment, appreciation of (belief in the value of interactions in learning) and interest in interactions, general learning preferences,

		<p>enjoyment of and interest in a subject,</p> <p>experienced change/ wish of change, challenge,</p> <p>altruism, reciprocity, availability and ease of use</p> <p>of social features, other users' activities - visible,</p> <p>relevant and interesting contributions,</p> <p>trust (for the site's privacy policy),</p> <p>time and timing, e.g. starting a unit, before</p> <p>enrolling in an OU course,</p> <p>confidence or lack of confidence – for some it can</p> <p>be a trigger for interactions, for others a barrier</p>
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Summary of motivations for and influences on learning on OpenLearn:

The factors motivating and influencing learning and interactions on OpenLearn were summarized and organised in the list below so that the list could be referred to after conducting other case studies for reflection and discussion purposes.

Learning on OpenLearn is driven by:

- Interest in, enjoyment of, curiosity about and appreciation of:
 - (1) Learning as a meaningful and pleasant activity,
 - (2) Knowledge and skills as good, meaningful and valuable (in themselves or as means to fulfil life objectives);

- Life-change;
- Flexibility;
- OU-link (familiarity, trust, credibility);
- Qualification;
- Interactions;
- High quality of learning materials;
- Intellectual stimulation.

The key contextual and background influences (which are all interlinked) are:

- Current life role(s) in relation to education, family, work and health;
- Previous experiences;
- Time availability;
- Recent changes in life circumstances;
- Family members' education, learning situation, encouragement, and relevance;
- Other people in the immediate surroundings of users and other learners online;
- General learning preferences, beliefs and attitudes, especially belief in the value of learning and the value of interactions in learning.

Online influences on socio-collaborative interactions:

- Availability of tools and spaces;
- Clarity and ease of use of tools and spaces;
- Visible, abundant and interesting evidence of activities of other users.

5.4.3.9. Main Question B: What role does OpenLearn play in supporting lifelong learning among different users?

As evidenced from what was observed among and reported by users and the components available on OpenLearn, the OER serves a range of needs, playing an important role in supporting lifelong learning among different users. It is because it facilitates free and open learning that can be pursued differently and flexibly allowing users in different life roles, with different goals and duties to organize and manage their learning depending on their individual needs.

OpenLearn is of particular value to those for whom free flexible ODL learning might be the only learning option, especially the disadvantaged groups including the disabled, immigrants and early school leavers (EU, 2010), promoting inclusion in learning, being accessible to everyone anywhere in the world freely. One criticism might be its availability in English only, which excludes non-English speakers.

In terms of materials, tools, levels and formats OpenLearn supports a diversity of interests and development of different knowledge and abilities for various life roles. Although it was not the objective of this study to assess or measure the development of any specific skills or competences, it is evident from the data gathered that users get involved in activities and tasks that can potentially help them in developing some key skills, e.g. communication or learning believed to be crucial to directing one's learning flexibly (EU, 2010).

Through developing different competences users can develop in their life roles, as shown in Figure 4 (Knowles, 1973), e.g. observe, reflect and interact with others helping them become more emphatic and tolerant, or organize their learning around other duties and obligations. OpenLearn thus provides opportunities allowing not only individuals to strive for self-fulfilment through flexible open learning but facilitates larger-scale learning contributing to strengthening social cohesion, in line with the recommendations of the European Key Competences for Lifelong Learning Framework (EC, 2007).

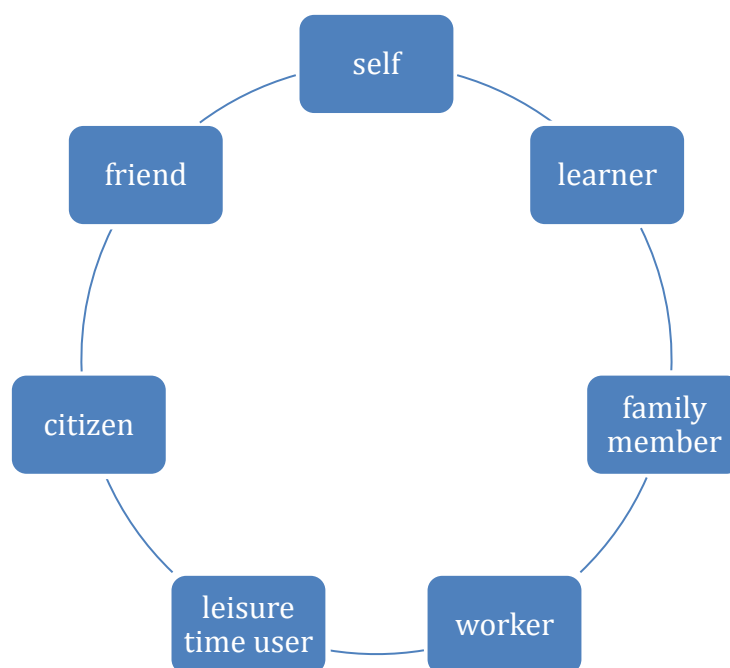


Figure 4. Life Roles (based on Knowles, 1973)

Some features foster attitude (re-)shaping, e.g. profiles help learners to get to know users from other cultures and learning journals serve as accounts of

problems of others, helping them identify with other learners, attitudes being crucial alongside skills, according to the European document (EC, 2007).

OpenLearn, through providing socio-collaborative tools, gives users the option to use these at specific times, e.g. when trying to decide on an OU course. Some tools can also be downloaded and used outside of OpenLearn context.

OpenLearn helps learners develop not only through helping them pursue their own learning but also to find out about the learning worlds of other users and get an overview of other people's interests, e.g. through discussion forums, profiles or learning journals. These possibilities could enhance the fostering of citizen competencies and reflections on multi-cultural diversity.

Through providing interesting quality resources OpenLearn supports quality learning sustaining users' interest. The high quality contributes to developing a sense of trust for the organization that provides them and – through a possibility of insight - a sense of belonging, valuing learning with a given OER provided by the organization, and developing a culture of learning with the OU and with OpenLearn.

OpenLearn facilitates what Ala-Mutka refers to as the main activities supporting learning in 'ICT-enabled networks and communities...[so]...'accessing individually and collaboratively-created resources, sharing and developing knowledge with others, observing and following others, networking and socialising, sharing personal contributions, participating in collaborative

production' (2010:32). The possibility of viewing other users' profiles might help in affiliation and identity building, e.g. feeling a sense of connection with those from similar backgrounds, with similar experiences or shared goals, likes, and problems. Interestingly, the interviewees appeared to have developed identities of OU students rather than 'just' OpenLearn users, both those who had been OU students and those who had not.

OpenLearn could be perceived as fulfilling the role of a learning community understood as (connecting) a group of people interacting socially 'while striving to satisfy their own needs... [e.g.]...an interest, need, information exchange, or service' (Preece, 2002:22).

OpenLearn helps individuals pursue the learner role which is very important also or perhaps especially after the formal education stage. OpenLearn supports non-formal and informal learning and can be used to enhance and support formal learning, too, or help in transition from non-formal to formal learning and from formal to non-formal learning. No deadlines or formal supervision mean that users do not have to stick to rigid ways of learning but are free to explore and try out different things at different times.

OpenLearn can be a user's main learning environment or only one of its components can be used, depending on users' goals and resources. The key element is the facilitation of opportunities to learning which is advocated by the EC alongside 'making them [learning opportunities] more visible, introducing new provision and removing obstacles to access, for example through the

creation of more local learning centres' (ESAE, 2007:23). Arguably OpenLearn is a form of a web-based learning centre.

Finally, OpenLearn helps people simply to do what they enjoy and perceive as meaningful and inspirational: learn. People simply learn, without necessarily wanting to meet any goals; they learn through thinking and feeling, because it 'enriches their soul[s]', as one interviewee put it.

5.4.4. Reflections

The most challenging part of the research was the actual getting to the point of interviews as many shortlisted users turned out not to have agreed to be contacted for research purposes, and not all from those contacted replied agreeing to participate. The route of negotiating access to participants with the OpenLearn team was, however, clear and straightforward as anticipated.

Triangulation of methods and sources is believed to have not only strengthened validity and reliability of the study but the understanding of users better through both exploring the learning situations online and discussing them in interviews.

A case study approach was also suitable because it allowed for using various methods and balancing out the smaller number of interviews with the discussion forum posts examined. It allowed a focus on the phenomenon of motivations for learning with OpenLearn as a unique learning environment,

letting me concentrate on its features, and spend time on in-depth qualitative interviews with individual participants.

The nature of motivations and approaches to learning were related to users' lives outside of OpenLearn, to their previous experiences and attitudes influenced by the world. As this study has shown, time and timing influence how and why learners use features, e.g. discussion forums to check the opinions of others before starting OU courses. On-going research on OpenLearn would allow improvement of tools and updating of the content as new users arrive to the site and current users develop in their learning journeys.

5.5. Case study: OpenStudy

5.5.1. Introduction

5.5.1.1. Focus, objectives and questions

Having recognized, in the previous case study, the significance of possibilities for socio-collaborative interactions while learning on OpenLearn, my objective in relation to OpenStudy was to find out what drove the learning around socio-collaborative interactions apart from establishing general motivations for and influences on using OpenStudy.

Because study groups with socio-collaborative tools are the only features on OpenStudy, the focus was on motivations for and influences on socio-collaborative learning simply because that was the only approach to learning that could be taken on OpenStudy. That differed slightly from the OpenLearn study because independent, more content-focused learning was possible on OpenLearn with course units and modules provided, whereas content-focused learning with OpenStudy is only possible with the OER and OCW linked to it.

Through finding out who some of the OpenStudy users were and what motivated them to use the groups to interact and enhance their learning with the MIT OCW and OCW Scholar courses (OpenCourseWare of the Massachusetts Institute of Technology (MIT, 2002-2012)), the objective was to ultimately gain

a bigger picture of how OpenStudy supported learning with OCW and OER, and discuss the role it played in supporting lifelong learning among different users on a wider OER scene. The aim of this study was thus to ascertain what motivated and influenced learning with OpenStudy among its registered users, in particular what role the socio-collaborative aspect played in supporting the learning process. These were the questions posed in order to gain that understanding:

- A. What motivates and influences learning with OpenStudy among registered users?**
 - 1. What are the main purposes of and reasons for interacting with other users (through discussion forums, chats, study groups, awarding medals, pressing the 'good answer' button, profile creation, and observation and reflection on the output of others) on OpenStudy?**
 - 2. How do users' learning landscapes (online and offline context and situation) influence their socio-collaborative learning on OpenStudy?**
- B. What role does OpenStudy play in supporting lifelong learning among diverse users? (including the provision of unique assets, users' likes, dislikes and valued tools, and the realised and unrealised potential of OpenStudy).**

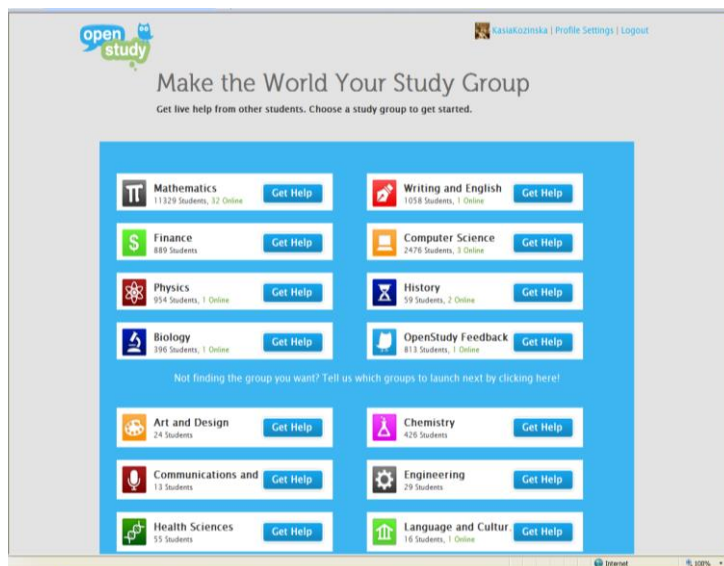
Since the only approach to learning expected on OpenStudy was the socio-collaborative approach (as OpenStudy does not facilitate content-centred

learning), no question about different learning approaches was posed. The questions on what users value, encountered problems, and needs and interests was tackled in the sub-question on learning landscapes and directly in the main question B. The origins of the term 'learning landscape' are described in sub-question 2. A slightly different approach to arriving at the findings via questions and sub-questions was taken in this case study to explore if and how it might influence the data collection process and the construction of findings. That was possible as a result of a low response rate to interview invitations that meant, among other things, more space to describe participants individually.

5.5.1.2. Description of the research site environment and the rationale for the selection of OpenStudy

'Our mission is to make the world one large study group, regardless of school, location, or background' (OpenStudy, 2009-2012)

OpenStudy, available through <http://openstudy.com/> (OpenStudy, 2009-2012), as seen in screenshot 3, was launched in 2007 as a site providing study groups to support learning with OER and OCW courses provided by different educational institutions, e.g. New York University or MIT.



Screenshot 3. OpenStudy (2011)

The founders, some of whom had previously been involved in work on online collaborative environments, believed, based on their experiences, that problem-based learning with peers helped sustain motivation for learning and increased engagement, preventing learners from withdrawing from the learning process when faced with obstacles. That was expressed by the interviewed co-founder of OpenStudy. Describing herself as ‘a great believer in the power of peer-to-peer learning’, the OpenStudy expert argued that answers that learners get from other learners can simply be better, ‘more direct and more satisfying’ because they are given from a different angle than that of a professor in a classroom context. As the co-founder reported it was the wish to facilitate online collaboration believed to enhance learning among self-directed learners studying with OCW and OER courses that was behind the launch of OpenStudy. The founders, as she put it, wanted to give learners ‘a platform for peer-to-peer learning’ where users with different knowledge and experience can help one another make progress, solve problems, or even act as mentors; and ‘a venue for

asking their questions' since many OCW and OER do not provide communication tools. OpenStudy was supposed to fill that gap functioning as a space where learners could belong to a learning community understood based on a community of practice (Lave & Wenger, 1991) where individuals gather around a subject, topic or problem they are interested in, returning to the group, helping one another and being influenced by role models within the group. According to the co-founder's account, a learning community based on these three principles– of returning, helping, and being influenced by role models – was what OpenStudy wanted to facilitate.

The main feature(s) on OpenStudy are the previously mentioned study groups linked to a number of OCW and OER from different universities. Most of them are U.S.-based but there are also general groups that are not linked to any courses, e.g. a general chemistry group or a general computer science group. Each study group has a discussion forum for asynchronous communication and a chat room where users can talk in real time. Each registered user can create a profile where they can put information about themselves, e.g. courses pursued and study groups, and upload a photo. In addition to posting on forums users can also rate the answers or helpfulness of others by awarding them a medal or pressing the 'good answer' button, so OpenStudy allows its users to get recognition for participation and acknowledge the contributions of others. The site awards titles for contributing automatically, too, depending on the number of contributions. The availability of badges and medals for contributions differentiates OpenStudy from OpenLearn and it was interesting to see if, indeed, this might make any difference to enhancing participation or supporting

learning among users, which was one of the reasons for selecting OpenStudy for research.

Another reason for selecting the 'add-on' to learning with OER or OCW, using the interviewed co-founder's term, was the existence of similarities between OpenLearn and OpenStudy in relation to some participatory learning tools, e.g. discussion forums. Although the focus of each case study was on uniqueness and individuality, possibilities of similarities were not excluded.

Although the intention was to recruit users from across various study groups linked to different OER and OCW, because of the long duration of negotiating access and suggestions of the OpenStudy team about which groups they preferred to approach, MIT OCW and MIT OCW Scholar study groups were chosen. These study groups were, according to the OpenStudy team, among the most active and at the same time not that established. Therefore it was also of interest to the OpenStudy creators to learn about what motivated users in more depth than through the feedback forum.

There are various courses on the OCW and OER that OpenStudy is linked to, of different subjects and levels of difficulty. Within the MIT OCW and OCW Scholar, too, some are more difficult than others and since learners are pursuing the courses independently, one of the areas that the OpenStudy team were keen to evaluate was if and how learning with OpenStudy helped prevent students from dropping out of courses or increased their motivation and engagement in learning.

As users can learn all over the world, incorporating the OpenStudy site in their learning, the OpenStudy team agreed that there was a need for research and evaluation of learning with OpenStudy, to understand who the users were and whether they were reaching their learning goals with the help of OpenStudy groups.

5.5.1.3. Methods of data collection, analysis, and participant recruitment

This case study needed to comply with the OpenStudy site's terms of use and privacy policy. While designing the study it was considered what features were available on OpenStudy, influencing how and where from the data could be obtained. The intention was also to use the experiences gathered in the OpenLearn study.

One of the first steps before commencing the research process was registering on OpenStudy to have a research account with the intention of exploring and observing what was happening within the groups and filtering out possible participants. The first invitation for users to participate posted freely on several different study groups' forums was removed by the site administrators following the interventions of study groups' moderators who did not think of the invitation as relevant to the subjects studied within the groups. In response to that, the objectives and focus of the study were explained to the OpenStudy team members via e-mails with the research study proposal, information and invitation letters and consent forms. A conference call was conducted with the

aforementioned co-founder of OpenStudy during which the research details and objectives were discussed and following which the OpenStudy team agreed to approach users shortlisted by me with an invitation to participate in the study. An invitation to participate was also posted on the discussion forums of the six study groups agreed upon with the OpenStudy team linked to the MIT OCW and MIT OCW Scholar courses in biology, mathematics, computer science and chemistry.

The next step was observing user activities within these groups linked to specific courses, e.g. MIT OCW chemistry, comparing them with the general study groups, e.g. chemistry study group, and reading the feedback posted by users on the OpenStudy feedback forum. Discussion forum posts were read, chat histories browsed, and the ways of awarding medals and badges examined. That process was meant to both help shortlist participants for interviews and serve as indirect semi-structured observation with the aim of gathering virtual output generated by users. Aiming for a balanced sample in terms of interests, location, gender and volume of activities visible, and bearing in mind that the response rate to similar invitations in the OpenLearn study was relatively low, a set of 99 users were shortlisted with the hope of interviewing at least the number of participants recruited for the pilot study (six).

The list was passed on to the OpenStudy team who approached users, following which I received six e-mails directly from users: three of which resulted in remote telephonic interviews and three in users' communicating and providing feedback via e-mail, in line with their preferences.

Two interviews with two OpenStudy team members were conducted, one of which was the aforementioned co-founder and another a research team member, and used both to set the context and as data.

Overall several weeks were spent observing online activities, conducting and processing interviews and e-mail feedback, and analysing the virtual output produced by the users belonging to the six study groups examined, each group with a discussion forum and a chat room, where output going back to the oldest post available was observed. 86 visible profiles of users (and their posts) from among those shortlisted were looked at, whereas the profiles of those six individuals who replied were analysed in more detail.

As only registered users can post, only registered users could be identified as potential participants and invited to the study. Therefore the flaw of this approach was that there might be individuals who read and observe the activities on OpenStudy without registering – these would be interesting users to obtain feedback from - and they could not be reached other than via the posted invitation but no unregistered users volunteered to participate.

Not being able to contact users directly but through the OpenStudy team resulted in a longer duration of the study. The user information gathered was anonymised and only information obtained during interviews was used in quotes in order not to make individuals identifiable.

Virtual output was analysed with the same methods used in the OpenLearn

study, i.e. data was looked at to see what stands out, 'to synthesize and identify key themes' (Preece et al., 2002:380) and produce a descriptive summary of what emerged (Preece et al., 2002).

With the intention to make use of the classification of motivations for socio-collaborative learning developed for the purpose of this thesis and also to check if it could be applied in a context different than OpenLearn but with similar tools, the classification developed in the OpenLearn pilot study was used to analyse data and interpret findings produced on OpenStudy. Based on that classification motivations for socio-collaborative learning on OpenLearn could be grouped into support-related, which happened through more general and informal interactions linked to emotions or organisational matters during learning, and expertise-related, which would be happening through more specific and formal interactions around content and subject-specific issues. There would also be mixed/ overlapping motivations interactions categories.

5.5.2. Findings

In order to answer main question A, sub-questions 1 and 2 were approached and answered in detail first. The main question B was answered as second.

5.5.2.1. Sub-question 1: What are the main purposes of and reasons for interacting with other users (through discussion forums, chats, learning groups, awarding medals, pressing the ‘good answer’ button, profile creation, and observation and reflection on the output of others) on OpenStudy?

- Expertise-related interaction purposes (more cognitively focused)

The purposes of user interactions with other users on OpenStudy discussion forums and chats are mainly expertise-related, specific to a given subject, topic or even specific problems or tasks within a unit or module. Based on the classification developed in the OpenLearn study, the expertise-related purposes can be grouped into two types (depending on the direction in which the expertise is ‘flowing’):

- (1) To share expertise, knowledge, information and experience with other users, e.g. through answering questions asked by others on the pursued

MIT course, e.g. on programming to be able to progress within the course or while learning independently,

- (2) To seek expertise, i.e. search for answers to questions from other users, solve problems using other users' knowledge, gain information, e.g. ask questions actively or check if a relevant answer is available should a similar question have been asked previously by another user.

Such expertise-related interactions happen around specific question-asking and problem-solving on a cognitive level, using the classification of Kreijns et al. (2003) into cognitive and affective levels within communication with others.

- Support-related interaction purposes (socio-emotional and organisational)

Within user interactions that could be classified as support-related, some are linked to socio-emotional support and some more to organisational support, e.g. matters of course organisation on MIT OCW.

As with expertise, users either provide support to others or seek support from others so the two purpose areas (directions) in relation to support would be:

- (1) To provide support, e.g. through answering questions on MIT OCW course organisation or by encouraging others and telling them that programming shall become easier over time, etc.,

- (2) To seek support, e.g. by asking for suggestions on other MIT courses after the current one is finished or asking about OpenStudy features.

As the interviews and examination of virtual output revealed, the sociability aspect on OpenStudy is mainly there to facilitate expertise exchange and help with organisational matters and not so much – as in the case of OpenLearn – to accomplish socio-emotional interactions.

- Mixed purposes (sharing and seeking overlap or/ and the cognitive, organisational, and socio-emotional-affective overlap)

Some purposes of using forums and chat are more difficult to assign to one specific category, e.g. when learners use them to:

- (1) verify their answers to problem sets (both sharing their work and asking for feedback),
- (2) ask for suggestions on extra information (not essential to solve a problem to progress in a course, but willing to do even better),
- (3) reflect on one's learning process with OpenStudy, including subject-specific as well as organisational issues,
- (4) seek additional information supplementing their online search (and sharing the results gathered),
- (5) thank others for help and offer help,
- (6) upload attachments to support one's question or answer (e.g. with explanations of solutions to problems),

- (7) introduce themselves briefly before asking a specific problem-related question,
- (8) comment or express one's opinion on the answers of others, challenge others,
- (9) ask about and recommend learning aids, e.g. books,
- (10) reflect on the forums themselves, i.e. on the progress of interactions,
- (11) help others by suggesting general problem-solving approaches,
- (12) express their criticism or frustration with other users' ways of interacting or their knowledge, e.g. questioning if they had deserved a medal or a badge,
- (13) suggest improvements in relation to OpenStudy design and features.

In terms of the differences between purposes of, reasons for and related advantages and disadvantages of using forums vs. chat according to users, the following was established: to ask questions learners use mostly forums although some said that in principle chat might be better because it facilitates real-time communication. The disadvantage of chat rooms is that if there is nobody there at the time of asking, there is little point in asking the question:

‘...the best thing about chat is that if someone gives you a reply and you do not entirely understand you have the possibility to ask follow up questions and that person will add something, reply, so such ‘live’ conversation is...it gives you more possibilities to understand the

problem...therefore I am absolutely in favour of the chat tool being there but unfortunately when I wanted to use it there were no conversation partners to talk to...the feature itself is nice, indeed, because if there was someone there who knew the answer, obviously you could get a quicker reply' (F).

Some prefer the forum because the question asked remains more visible to those entering a study group so potentially more people can see it:

'if you post on a forum it's a lot...it is like everyone can come and see it, instead of just people who are on the chat right now so I prefer to post things on the forum...just so that I get as much exposure to my question as possible and get as many eyes on it as I can' (N).

There are some educators on OpenStudy who use forums to 'observe and assist students' in the words of a user who is one of the authors of an MIT OCW course.

Observations and analysis of users' output on OpenStudy showed that questions asked or suggestions made either stop after the question had been answered, e.g. with a follow-up thank you post, or develop into discussions (sometimes with more users joining), progress into longer conversations on a 'deeper' level, with users challenging one another, questioning their answers, contesting and arguing.

Study groups on OpenStudy function more as gatherings or learning support

networks of individuals rather than coherent communities. The main purpose of belonging to a group is, again, to communicate with others learning with the same MIT OCW course. Individuals studying with these courses can decide to use OpenStudy or not, they can see posts on OpenStudy as unregistered users or choose to register if they want to post themselves. The users interviewed in this study were mostly interested only in these groups linked to specific MIT OCW courses pursued by them. They valued this specialism degree over the possibility of talking to other learners generally interested in for instance programming, and not being interested in the general groups, e.g. the Computer Science group because, as one interviewee put it:

‘It’s not really as specific as I’d like it to be’ (N).

Users decide to join groups because of the possibility of communicating with other individuals pursuing the same course. Some users check the more general groups occasionally to see what is there or look at other groups to have an overview of what others are learning. The trend among this study’s participants was seeking specificity, sometimes looking for people not even pursuing the same course but those doing exactly the same units. One interviewed user said he always had the OpenStudy window open while learning with MIT OCW, being logged on in case he needed to ask a question. Another interviewee commented on the impression of being linked to others saying that it was simply nice to feel one was not the only one learning:

‘Study groups really makes it more like a classroom’ (A).

On the link (of groups) to MIT OCW:

Those who arrive via the MIT OCW have the overarching purpose to enhance their learning in order to finish their course, sometimes asking questions on OpenStudy on how to work through the MIT OCW best:

‘OpenStudy is the only place I can find that I can ask questions about the course specifically, there isn’t like an email address or anything of anyone related to the course who looks after it..., so you really don’t have much help in that situation...majority of my help comes from OpenStudy’ (N).

Some users do not pay attention to badges or medals as forms of acknowledgement, e.g. one interviewee described them as ‘meaningless’. Others, in contrast, value them:

‘Even though there is no material gain from that it is just nice that someone appreciates it’ (A).

‘Yes [I do notice that], it’s not the main focus, but it’s just a nice touch’ (F).

One interviewee observed that having many medals might raise the credibility of a user’s answers:

‘perhaps an even bigger function of these medals than motivation in my

view is that the person viewing the answers of another person that has many of these medals...it then raises somehow the credibility of this answer so if someone who is looking for a solution to a specific problem...they would more easily believe the person with many of these medals and know that this is a good, credible answer, of quality and so on' (F).

Another interviewee asked about the awarding of the badges said:

'I enjoy it, I play it...it kind of makes it like a game... [a reward] to get so many achievements' (A).

The OpenStudy profiles are used by individuals to:

- (1) tell others something about themselves, e.g. introduce themselves either with their full name or user ID, or state their current role and/or organisation, e.g. high school student at...,
- (2) provide their contact information, e.g. e-mail address,
- (3) encourage or invite others to contact them,
- (4) tell others about their learning preferences.

The six profiles that were examined in detail turned out to be basic rather than extensive profiles, with users mainly putting just the essential information there. In the words of interviewees:

'I don't really pay attention to such features because what I care more about is the subject-related side of the service and not its social media side...but it does not disturb me either' (F).

'I put that information [profile] generally in there...but it's not that important, I don't look at people's in-depth information' (N).

One user said he would usually click on the profile of others just to see who they are if they have been helpful or if they had not been helpful or nice:

'If someone is really helpful I'll kind of make a note of them' (N).

Sometimes users simply click on the 'good answer' button instead of going on another user's profile.

Based on the activities of the participants of the study, OpenStudy emerged as a platform for specialist communication where specific discussions relating to specific problems within specific courses and units take place, questions are asked and problems solved.

The possibility of communicating with other people with specialist knowledge and/ or facing the same specific course- or topic-related problem is the key reason for using OpenStudy and for interacting on OpenStudy (as the availability of study groups with discussion forums is the main feature the reasons for joining OpenStudy, learning with OpenStudy and interacting on

OpenStudy overlap). Access to people, other learners, who can help users obtain answers to questions they need is crucial. Learners interact to get answers from others, from their peers rather than professors, because as an interviewed user said:

‘Someone who has also watched the lecture and studied the same thing can explain in a much better way than the professor who is giving the lecture’ (A).

The presence of other users matters because:

‘There’s so many people that use it, someone is bound to answer’ (N).

Interactions on OpenStudy are important for its users but they do not usually contact each other outside of that context - as one user said keeping in touch is ‘not what I go on there to do’.

OpenStudy is used because it is linked to MIT OCW, because it facilitates communication around these courses, because it serves as a space for question-asking, exchange of ideas, opportunities for reflection and peer learning. At the same time participation is a choice not an obligation, so there is ‘freedom’ to participate unlike in the classroom context sometimes. Aside from that the service is simple to use and available free of charge.

What emerged as the key point is the purpose of seeking expertise and

specificity in communication with others:

'I can ask really specific questions answers to which I cannot find on [names a popular search engine], and I can kind of have a discourse with someone who is more experienced in programming than I am so I learn a lot just by doing it' (F).

Interactions are part of users' learning strategies. For example, a user communicates with others to solve a smaller, specific issue to subsequently solve a larger problem or a problem set and in this way progress in the MIT OCW course studied:

'...when I ask questions I get really eager to see an answer because usually I ask a question about a problem that has been really bugging me for a long time, and when I do a problem set and can't get it I just really need to solve the problem before I can do anything else' (A).

A course is usually pursued with the goal of completing it as a foundation for further, more advanced learning and the participants of this study appeared, indeed, mainly goal-driven.

5.5.2.2. Sub-question 2: How do users' learning landscapes (online and offline context and situation) influence their socio-collaborative learning on OpenStudy?

A slightly different approach to exploring the role of context in learning and interactions was taken in this case study than in the OpenLearn one mainly because there were three times fewer participants involved in interviews in this study. This study's focus was also on socio-collaborative learning and not on both socio-collaborative and independent learning like on OpenLearn. The small number of interviewees and a more narrow focus granted more space for experimentation, e.g. more space for descriptions so the interviewees' profiles were presented individually one after another, describing in detail various offline and online influences on socio-collaborative learning from within the context of each interviewee separately. This approach made it possible to make links between influences and factors within the learning contexts of each individual involved.

The first part of the response to the question deals with the description of the term 'learning landscape'. This is followed by a presentation of interviewees' profiles, in other words portraits – a word perhaps more suitable when the intention is to depict someone's learning world. Next a table summarizing online and offline factors that impede and encourage interactions between users and tools on OpenStudy is presented. Finally a synthesis follows with links made between what emerged during interviews and from observing user

activities and output on the site to understand how various factors combine to influence the users' interactions and learning with OpenStudy.

What is meant by 'learning landscape'? Sharpe et al. recognised different dimensions of blended learning, e.g. 'technology – mixtures of (web based) technologies' (2006:18) or 'focus – acknowledging different aims' (2006:21), and the importance of the provision of 'a study or learning landscape' (Sharpe et al., 2006:23). Allan adopted their understanding of blended learning to interpret 'a landscape of blended learning' (2007:5) as the context in which the learner pursues the learning with the resources and influences, including time and place, type of learner and ICTs available. That learning landscape concept was used in previous research (Kozinska, 2009) to build the learner-led blended learning landscape framework (based on Sharpe et al. (2006), Allan (2007) and NSF (2008)). It was used to analyse data and interpret findings, placing the learner with their learning goals and motivations in the centre of the learning process and taking the following list of features into account as influencing their interactions and learning. These include the formality of learning (whether the individual is enrolled in a formal course or not), the place of learning (e.g. home, work, train), time, whether the learning is pursued face-to-face or online, whether it is structured, what role interactions play in it, what learning aids, technologies, devices and other resources are used, and how digitally literate the users are.

Why use a blended learning framework if OpenStudy is a web-based service?
Because there are factors that influence learning online at the time of learning

and a wider context, relating to the so-called 'offline' situation of the learner, e.g. their educational background and current life role. Hence the talk of blended learning landscape even if OpenStudy is an online facility, not enhanced by any face-to-face events for users.

Learner profiles describing individual landscapes of learning and interactions on OpenStudy among the three participants interviewed by telephone follow. Instead of (changed) initials, (changed) names are used simply to make the section a better read.

Interviewee 1: John (A)

John is a teenage high-school student from Chicago who is using OpenStudy to support his learning with MIT OCW. He is pursuing an introductory-level course in computer science with a long-term objective of becoming an application developer. In relation to his main educational role and spare time learning he is a student in both, online and offline, full-time and in his free time, so his formal and non-formal learning roles overlap.

With two more years at school and summer holidays starting [at the time of conducting the interview] John is very enthusiastic about the course dedicating approximately ten hours per week to learning with MIT OCW and OpenStudy. The start of his course coincides with the start of summer holidays meaning that he is able to dedicate more time to learning with OpenStudy.

John displays a positive attitude, persevering in the face of obstacles that motivate him to try harder rather than seek easier options. He values flexibility on OpenStudy, the freedom to learn with it whenever he wants which, in turn, is linked to (the valuing of) the flexibility of learning with MIT OCW. Other OpenStudy users play a significant role in John's learning in the sense that he believes that he can use their knowledge to solve problem sets from the course pursued and subsequently progress within that course.

Interactions (communication) with other users support this users' non-formal learning (for which he also uses other strategies, e.g. online search), whereas

John uses his study group as a resource of individuals he can contact to ask questions and solve problems with:

‘We mostly communicate on OpenStudy...there’s a few guys that I regularly talk to on OpenStudy, I’ll send them a message or something’
(A).

The choice of device and setting that John uses for learning are part of his learning approach and strategy, and depend on the complexity of the task, e.g. he chooses to solve problem sets at home on his laptop where there are fewer distractions so he can concentrate better. If a task demands less concentration and cognitive effort, e.g. John just wishes to check if anybody had answered his question he can do it on the move using his smart phone.

Apart from learning with OpenStudy and MIT OCW John is involved in various activities, e.g. local community work. Another resource used by him for learning that was mentioned during the interview is the Khan Academy.

John’s socio-collaborative engagement is driven by problem-solving, obstacles prompting him to ask questions and seek solutions in order to learn and gain knowledge. How and where he does it, e.g. by posting a question on the study group’s forum, and the choice of device and location, are linked to his goals, resources at hand, convenience, and nature and complexity of the task. John is an engaged learner, actively involved in interactions, and his attitude is important in supporting his learning and interactions on OpenStudy.

Interviewee 2: Mike (N)

Mike is a teenage high school student from Connecticut who is learning with an MIT OCW Scholar course in mathematics. His learning is non-formal but outside the OpenStudy learning context he is a student, too, hence his two educational roles, on OpenStudy and generally, offline, overlap.

Interviewed half-way through the mathematics course, Mike is enthusiastic about it and spends about four hours learning with the MIT OCW Scholar and OpenStudy daily, which is quite intensive learning, taking up most of his spare time.

He is interested in maths and sciences and his interactions on OpenStudy are closely linked to seeking expertise, challenging himself and also feeling an obligation to, in a way, 'pay back', as he put it, for the free service that OpenStudy provides through helping others. He described himself as 'not really a social person' but sees the interactions not just as a choice but as his duty, too.

Mike's socio-collaborative engagement is linked to his specialist interest, liking of interactions without the constraints of the classroom, and ultimately to his smaller short-term goals of solving problems, completing this course, moving to a similar but a more advanced course, and eventually studying at graduate level and becoming a scientist. The badges, medals, etc., just make it seem like more fun although are not the main focus of interactions. His learning aids are MIT recitations and also traditional books, e.g. a calculus book. The user's learning

approach is goal-driven but, since mathematics is his passion, the learning is motivated by enjoyment and interest.

Mike's other activities include playing a musical instrument. He pursues learning with OpenStudy and MIT OCW at home on his laptop.

Interviewee 3: Florian (F)

Florian is a twenty-something third-year physics student at the Wroclaw Technical University (Poland) who is currently on an exchange at The University of Cambridge, England. He is using OpenStudy to support his learning with a physics course on MIT OCW. Florian's learning with OpenStudy is non-formal and pursued in his spare time but closely linked to his formal higher-level education. His educational roles on OpenStudy and outside overlap. He spends about three to four hours on OpenStudy learning per week wishing to complete the course.

The user's subject interests include physics, chemistry and mathematics, and his interactions are expertise-driven. Florian values the fact that OpenStudy provides tools to support interactions around learning, the simplicity of these tools and the link of OpenStudy groups to specific MIT OCW and OCW Scholar courses but strongly feels that the site is not using its full potential.

The visibility and accessibility of OpenStudy from and through MIT OCW facilitates the use of OpenStudy, as Florian observed. He values interactions and

the possibility of learning with peers, asking questions on forums and benefiting from being a member of specialist groups where he can contact people who are learning the same things. The interviewee appreciates the opportunity for specificity, specialism rather than any sociability aspect - that is not that important for him. Subject knowledge is at the centre of his learning. He is grateful for the service that OpenStudy provides because it makes it possible for him to communicate around the specialist area he is interested in. He appreciates the ease of use of the site and how simple it is to ask questions and get in touch with other users.

Not feeling competent enough is something that has prevented Florian from contributing to answering the questions of others on OpenStudy. His other activities are programming and he is also a wiki editor. Florian did not elaborate on what devices or in what locations he used OpenStudy.

Table 5. Factors that encourage or impede interactions with other users and tools on OpenStudy (grouped into usability and sociability based on Preece & Shneiderman's Reader-to-Leader Framework (2009))

FACTORS	ENCOURAGE	IMPEDE
ONLINE	<p>Usability:</p> <p>Visibility, e.g. of links,</p> <p>Clarity and ease of use, e.g. of forums: 'it is easy to use...it is enough to write in a question, click send and the question has been asked',</p> <p>Possibility of awarding and getting badges and medals:</p> <p>'Even though there is no material gain from that it is just nice that someone appreciates it'...'it's not the main focus but it's just a nice touch',</p> <p>Availability of tools that can be used for specific notations, e.g. for maths,</p> <p>Sociability:</p> <p>Visibility, Activity, Expansion:</p> <p>Seeing other users online, lots of activity:</p>	<p>Usability:</p> <p>Privacy policy concerns,</p> <p>Not enough subject groups,</p> <p>Possibility to 'go back' to past content when looking for answers and solutions – as one can find an answer there one does not post a question online</p> <p>Sociability:</p> <p>Lack of users online for instance if one enters chat,</p> <p>Lack of activity and users</p>

	<p>'there's so many people that use it, someone is bound to answer',</p> <p>A growing number of users, seeing the site expanding and improving:</p> <p>'the trend is good',</p> <p>Encountering a problem, challenging tasks, obstacles (that one wants to overcome), need of feedback, wanting to challenge other users, share one's work, ask for suggestions,</p> <p>Possibility of contact with others pursuing the same courses or even the same units/ modules,</p> <p>Reaction of others to one's posts, positive or any,</p> <p>Knowledgeable, helpful, polite users, e.g. a good answer of another user encouraged a participant to click on their profile</p>	<p>in some groups,</p> <p>Other users' activities perceived in a negative way:</p> <p>'there's some troublemakers...people are spamming the chatroom'</p>
OFFLINE	<p>Interest in a specific subject,</p> <p>Interest in, liking & appreciation of learning,</p> <p>General preferences:</p>	<p>(feeling) not competent enough</p>

	<p>'I like to search for a solution to a problem through writing on some sort of a forum',</p> <p>Attitude: wanting to learn, be willing to get feedback, persevering, wanting to understand how a tool supports learning,</p> <p>Free-of-charge service – feeling a sense of obligation to interact out of gratitude:</p> <p>'it's kind of your duty - [because] you receive free service - that you give back to community'.</p>	
(can either encourage or impede)	<p>Level of difficulty, encountering a challenge,</p> <p>Nature and complexity of task,</p> <p>Device, technology, location,</p> <p>How specific a discussion is,</p> <p>Character, personality, attitude, e.g. both social and less social learners interact and get involved,</p> <p>Time and timing, e.g. beginning of holidays, season of the (school or academic) year.</p>	

In summary, the following factors combine to influence the users' interactions and learning with OpenStudy:

(1) Educational role and formality linked to strategy

The formal and non-formal educational roles of the three interviewees overlap. Although their choices and use of OpenStudy groups are closely linked to formal education, structured learning on MIT OCW and future educational or professional plans - so are not pursued out of leisure - the participants are passionate about their work, valuing and enjoying it. Their roles, plans and interests are in alliance, then, and their use of OpenStudy – organized around and because of these.

(2) Interactions- strategy, preferences, attitudes

The structure linked to pursued MIT OCW courses and being driven by individual goals contribute to the participants being more 'networked individuals' (Ala-Mutka, 2010) than members of learning communities as for instance the seeking of role models (based on Lave & Wenger, 1991) or keeping in touch with others outside of OpenStudy did not emerge. Users stressed their interest in expertise and knowledge rather than getting inspired, albeit returning to their groups and helping others in line with the intentions of the site's creators.

Based on the RTL framework collaborators are those 'developing relationships, working together, setting goals' (Preece & Shneiderman, 2009:20). Some individuals do set challenges, encourage others to get involved and discuss

problems, although most read and contribute rather than work together on shared projects. Users co-operate using forums to ask questions, solve problems and exchange feedback. Individuals cannot really lead the community as control is exercised by the OpenStudy team ensuring the site's use in accordance with its purpose: to support learning.

Preferences and habits prompt some to actively post on forums and others to first search for answers among previous posts. Attitudes and confidence matter as some feel obliged to interact to pay back the community, while those feeling competent enough lead discussions.

(3) Time, technology, resources

Time spent on learning with OpenStudy varies between individuals: while some spend four hours daily others spend less than that weekly. All interviewees were at the beginning or half-way through their courses but it is unclear whether their enthusiasm was linked to that and if their learning would become less intensive towards the end of courses.

Although online access is a pre-condition to using OpenStudy, the question on whether users had it was not even asked during interviews, it was taken for granted, assuming that if users use OpenStudy they must have online access whenever needed. Locations and devices used to access OpenStudy depend on users' goals, nature of tasks, and availability and convenience, e.g. using mobile devices for less cognitively demanding tasks.

Traditional books and other sites with forums or wikis where questions can be asked or information found are also used by OpenStudy users.

(4) Learning landscapes: users' goals and external possibilities combining to learning decisions

The learner directs their use of OpenStudy making decisions based not only on what they want to achieve, their preferences and attitudes but also, importantly, on available resources. While internal motivations might prompt interactions, external factors also influence users on whether and how they interact. Socio-collaborative learning within OpenStudy is a dynamic process, motivated and influenced both internally, from within users, and externally, by user's learning landscape(s).

5.5.2.3. Main Question A: What motivates and influences learning with OpenStudy among registered users?

Motivations for learning and for socio-collaborative interactions on OpenStudy overlap as study groups with discussion forums are the core learning tools on the site. These motivations among the participants of this case study turned out to be strongly expertise-related. Learners sought specificity choosing to participate in activities closely linked not only to their pursued subjects but units or modules they were interested in and learnt with within the MIT OCW courses.

Motivations for using OpenStudy also turned out to be linked to motivations for

learning with MIT OCW, e.g. learning motivated by a wish of qualifying for a particular profession. How the MIT OCW-linked learning is organized and pursued among the participants determines how OpenStudy is used by them, e.g. how often. Problems students encounter while learning with MIT OCW influence whether they look for solutions through interactions on OpenStudy. How they look for solutions is down to their general preferences, while devices and locations that OpenStudy is accessed from are linked to goals, possibilities and task types.

Among the participants interviewed, strong interest in and enjoyment of a specific subject emerged as motivators to use OpenStudy in order to interact with others, and also to learn with MIT OCW, individuals joining groups linked to subjects liked and valued.

Participants were motivated to interact with others by (their wish to gain) knowledge, specific skills, specialist feedback and solve problems. Belief in the benefits of learning from their peers and trusting in obtaining help on OpenStudy emerged as significant alongside a sense of duty, reciprocity and altruism, and social norms and rules, e.g. courtesy and politeness. Enthusiasm and positive attitude played an important role among participants learning and participating on OpenStudy. Confidence in one's abilities and knowledge was important in facilitating involvement in interactions and, conversely, a lack of confidence or a feeling of insufficient competence prevented some from trying to answer the questions of others.

Obstacles motivated some to engage in interactions in order to – by overcoming them - gain knowledge, solve problems, and progress within their course.

On a wider level users were motivated by a desire to fulfil their dreams and ambitions, e.g. becoming a technology entrepreneur, etc.

Contributions of others that were visible on OpenStudy and were perceived as interesting encouraged interactions, confirming the claims of Preece & Sheiderman (2009). Visible recognition of others mattered for some learners who would find the badges and medals awarded pleasant and motivating. The presence of others online would help some individuals get the impression of classroom learning, not feeling isolated but linked to other learners because of their online visibility, which relates to Ala-Mutka's (2010) claims about the illusion of close links among users connected online.

Feedback plays an important role, interestingly not just positive feedback but, as one user put it, 'any reaction', even critical. Feedback from the community is what often helps users progress within their roles or 'modes of participation', to use the term of Makriyannis and De Liddo (2010), except that the authors claimed it should be positive. What was observed on OpenStudy in a few instances during this case study was users engaging in discussions with others that would be challenging them, criticising them, and sometimes giving them negative feedback.

The simplicity and ease of use of the social tools on OpenStudy also encouraged

users to contribute, confirming the findings of Preece & Shneiderman on usability factors enhancing technology-mediated social participation (2009). The reasons for using or not using tools depend on personal preferences and perceptions combined with possibilities granted by a situation and availability, e.g. some users prefer real time communication but if there is no one in the chat room they will post on forums.

Flexibility of use is an important factor encouraging learning with OpenStudy as users can learn in their spare time without having set times and tasks but having enough structure thanks to how the courses are organized on MIT OCW and how well they are linked to specific study groups on OpenStudy. What is important in using OpenStudy is the freedom to direct one's own learning and to choose if and how one interacts with others. Thanks to that freedom and flexibility learners use OpenStudy in ways that help them meet their goals best, as shown on the examples throughout the sub-questions. Based on their goals and using resources available, users manage their own learning environments or landscapes in which OpenStudy can play a key role thanks to the peer and expert support network it can provide access to.

Communication with other learners is at the core of learning with OpenStudy. Individuals join OpenStudy in order to communicate to learn and because they have the possibility to communicate for learning, freely and flexibly. Communication facilitates problem-solving and makes progress possible.

**5.5.2.4. Main Question B: What role does OpenStudy
play in supporting lifelong learning among
diverse users?**

OpenStudy plays an important role on the OER in lifelong learning scene because of the uniqueness that consists in its provision of study groups with communication tools that are closely linked to various OER and OCW that provide opportunities for structured learning.

Specifically in relation to this study, that combination is valued by users learning with MIT OCW because it enables them to connect quickly and directly with other individuals pursuing the same course. Users learning with MIT OCW courses can access a specific OpenStudy group, linked to their course, directly from a link provided to it on the MIT OCW. OpenStudy can also be accessed via its main page which allows users to see an overview of other study groups and subjects.

As the results have shown, the main reason for and purpose of using OpenStudy among the participants involved was the possibility of communication with others pursuing the same courses and seeking answers to questions and solutions to problems with the help of others. OpenStudy, then, facilitates specialist communication that is crucial to learning which helps self-directed learners make progress within the course and cope with problems that they might not have overcome alone. OpenStudy is, in that sense, a platform for peer learning and, according to the interviewed OpenStudy co-founder, 'a venue for

question asking' where users can interact using other users as their 'intellectual scaffolding' (Vygotsky, 1978), as those with whom and thanks to whom progress can be made. Progress can relate to problem-solving on a micro-level, within particular units, or it can be understood more widely relating to completing courses and fulfilling one's educational goals and professional dreams.

The service OpenStudy provides is free, available both to registered and non-registered users but those who want to post need to register, which is meant to protect registered users against being targeted by sales companies or malicious users. The possibility of choosing a nickname instead of providing a full name is valued by some who might not want to reveal their identity, e.g. those who might feel uncomfortable asking questions if they do not feel competent. The OpenStudy team monitor activities on the site removing any content not in compliance with the site's terms and conditions of use.

OpenStudy's simplicity is a major advantage. Users value the ease of using the site and tools although it was their opinion that there could be much more done with the site and its full potential was not being used, e.g. even more study groups of different subjects and topics could be created.

OpenStudy users value the fact that they have a choice rather than a duty to interact, an option of having a classroom learning feeling, where specific course-related questions can be asked but there are no grades, teachers, or set times in which learning has to happen.

The presence of other learners willing to provide answers to questions, feedback and organisational guidance makes OpenStudy an environment in which learning support can be obtained from peers. At the same time learners can also reflect on their own learning processes and on how others interact on the site to support their learning, e.g. through reflecting on how they overcame obstacles, setting and re-setting goals, recommending specific resources or general learning strategies.

OpenStudy users have possibilities of communicating with peers around issues relating specifically to the courses pursued. There are opportunities to solve specific problems with others. Finally, users have the freedom to learn and to communicate, the flexibility and the choice to get actively involved or perhaps just observe what others are writing and trying to learn from the output already available. It is that combination of possibilities and the flexibility of communicating and learning that makes OpenStudy unique as a learning environment on the global OER in lifelong learning scene.

5.5.3. Reflections

The specificity of this case lies in the study being about OpenStudy groups linked to the MIT OCW study groups.

The small number of interviews conducted made it possible to experiment with a different approach to answering the research questions, one that simply required more space because of the learner profile descriptions.

The classification of motivations for socio-collaborative learning developed in the pilot study on OpenLearn was used and tested in this case study, as was the table of online and offline factors impeding or encouraging interactions (that was developed based on the RTL framework (Preece & Shneiderman, 2009)). Therefore the contribution of this case study consists also in empirically testing some of the classifications developed in the thesis.

Another approach to the contextual issues in motivation was also taken in this study with the intention to explore what might change and how. The use of the term learning landscape rather than just examining the online and offline context of various users' learning environments seemed more appropriate for talking about learner portraits or learner profiles, trying to depict their learning environments, examining them one by one.

Users' goals were also present in examining the learner profiles and their learning landscapes as the learning goals were linked to users' educational roles (which was also observed in other case studies when the context of learning rather than landscape was examined).

One recommendation for further study would be to involve more participants in the interviews from among various groups linked to different OER and OCW available on OpenStudy to establish if and how the links to different initiatives influence the use of OpenStudy for learning among its users. In this study it was interesting to observe that although the participants of the study learnt non-formally their learning was structured and organized in line with the structure

and tasks in their MIT OCW courses.

The study's contribution consists in showing and describing in detail a few learning landscapes of users in the learner roles for whom the site plays a crucial role in helping them make progress in courses they are learning with on MIT OCW.

The study's findings show that the site fulfils an important function therefore study groups should continue to be provided and linked to specific courses. Tools like discussion forums should remain there as they are significant in facilitating communication and peer learning that helps learners in solving problems and gaining knowledge, and, on a broader level, in completing courses and progressing to more advanced levels.

Being driven to communicate by problem-solving fits the claims of Pea's (1993) distributed intelligence theory (DI). Pea spoke of DI as constructed when people interact with technology, including 'social media...for supporting...peer collaboration' (1993:48), and other humans to reach their objectives. Using this theory OpenStudy can be seen as an online environment where users interact with their peers using the social tools available on OpenStudy.

The significance of this case study's findings is discussed in more detail at the end of the thesis in comparison to the findings of the OpenLearn study as these are the two initiatives examined in this thesis containing socio-collaborative tools. This study's main contribution consists in exposing how important the

possibility of communicating with others is for those who are learning independently non-formally. Therefore it illustrates how important it is to provide other similar initiatives facilitating socio-collaborative learning that would make it possible, like OpenStudy, to pursue structured learning independently while also having a chance to communicate with other individuals from all over the world pursuing the same course.

5.6. Case study: OpenSpires

5.6.1. Introduction

5.6.1.1. Focus, objectives and questions

The focus of the this case study was on the role of OpenSpires in supporting lifelong learning among different users and the factors that motivate and influence the use of this OER. The objective was to understand this through exploring various ways, purposes of and reasons for using OpenSpires from the perspectives of not only users or learners but contributors such as academics whose podcasts are available on OpenSpires.

The questions posed in this study were:

What motivates and influences learning with OpenSpires among different users?

What role does OpenSpires play in supporting lifelong learning among different users?

The following sub-questions were asked to help answer the main research questions:

What are the goals (purposes) of and reasons for learning with OpenSpires?

How does the online and offline context influence learning with OpenSpires?

What approaches to learning can be observed among different users of OpenSpires?

What do users value most in learning with OpenSpires?

What are the criticisms and problems that users encounter on OpenSpires?

What are different users' needs and interests?

The sub-questions, with lists of things ascertained in the order of working from the first to the sixth sub-question, notes and examples, were answered first and formed a basis to answer the main questions. Because the mechanism of answering research questions based on detailed answers to pre-specified sub-questions was already explained and shown in detail in the OpenLearn and OpenStudy case studies, the findings are presented in the form of answers to the main questions, supported by examples and quotations, to make the presentation more compact.

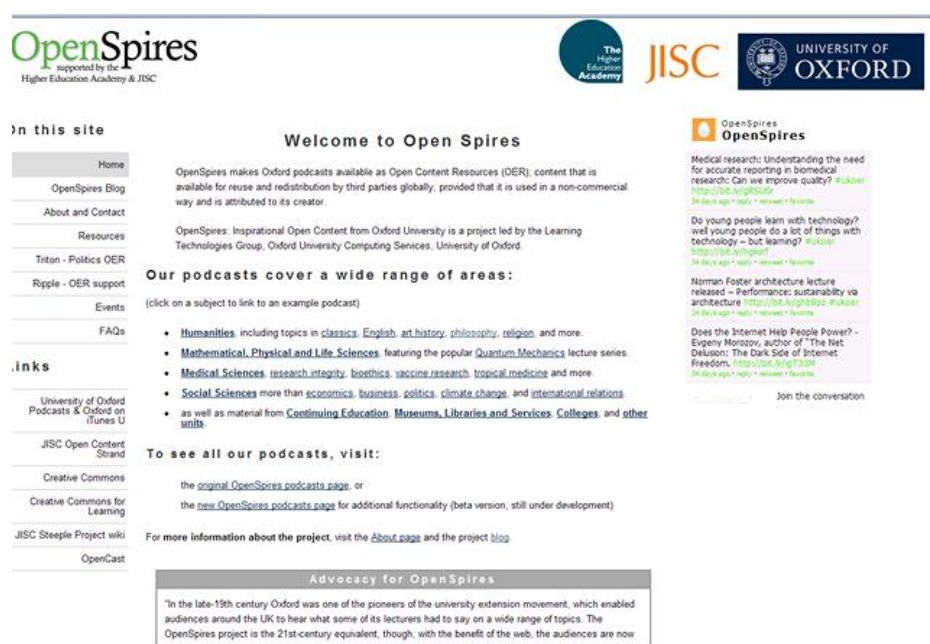
5.6.1.2. Description of the research site environment

and the rationale for the selection of OpenSpires

OpenSpires, available through <http://openspires.oucs.ox.ac.uk/> (Oxford University Learning Technologies Group, 2010), as seen in screenshot 4, is an Open Educational Resources initiative of the University of Oxford also referred

to as an open content initiative because it is mostly audio-visual material available for downloading. According to the introduction on OpenSpire:

‘OpenSpire makes Oxford podcasts available as Open Content Resources (OER); content that is available for reuse and redistribution by third parties globally, provided that it is used in a non-commercial way and is attributed to its creator’ (Oxford University Learning Technologies Group, 2010).



Screenshot 4. OpenSpire (2011)

As a project run by the Learning Technologies Group which is part of the Oxford University Computing Services (OUCS) at the University of Oxford OpenSpire was launched to

‘establish a sustainable set of policies and workflows that would allow departments from across the University of Oxford to regularly publish high quality open content material for global reuse. In less than a year 140 Oxford academics and visiting speakers donated material to support their subject communities, each contributor signing a Creative Commons licence that allows their material to be promoted for reuse in education world-wide.’ (Mansell et al., 2010:4).

One of the objectives was to ‘increase the number of [Oxford University lectures] recordings that are released with a Creative Commons licence’ (The University of Oxford, 2011-2012) in line with the recommendations of funding bodies HEFCE and JISC.

The podcasts are of Oxford academics lectures, visiting speakers’ and conference presentations, and interviews with individual scientists and scholars. Subject areas in which podcasts are available range from humanities, e.g. philosophy, English; sciences, e.g. physics, medicine; social sciences, e.g. economics; and various material from Oxford museums, libraries, colleges, the Department of Continuing Education and others. The content available on OpenSpires is mainly podcasts, audio recordings, but there are also videos and supporting materials such as documents, e.g. transcripts of lectures and questions and answers (Q&A) sessions, reading lists or presentation slides. In April 2010 there were: ‘eight complete Oxford lecture series [and] thirty sets of research seminars, interviews, conferences, presentations and panels’ (Mansell et al., 2010).

Oxford was already making content available through the Oxford iTunesU podcasting service launched in October 2008 before OpenSpires was launched in May 2009. At the time of starting the study there were over 700 podcasts available.

Having conducted research on OpenLearn and established its potential to support socio-collaborative learning the aim was to investigate OER that differed from OpenLearn and could be used differently in line with the aim of diversification of the OER sample. The profile of the organization behind OpenSpires differs significantly from that of the organization behind OpenLearn, Oxford University being the oldest in the English-speaking world with some colleges established a few centuries ago and still with a somewhat elitist reputation whereas the OU founded just over 40 years ago to widen participation in higher education especially among disadvantaged groups through facilitating open entry to distance learning. Both universities attract large numbers of students and are known for teaching excellence. These differences and similarities, in the organizations' profiles and their OER, made it interesting to explore what would be reflected on different motivations for and approaches to using OER.

Issues of access also played a role in selecting OpenSpires, i.e. the OUCS team's physical location in Oxford close to the OU if face-to-face interviews were the preferred form for participants (which they turned out to be in three cases). Having studied at Oxford myself, I also expected that individuals might be familiar with some of the work done in the field of OER already, which could

possibly make negotiating access and participation more straightforward.

5.6.1.3. Participant selection, data collection and analysis, and ethics

The goal of the data collection process was to gather primary material that would help answer the questions posed in the study. The main question on the role of OER was answered based mainly on the interviews conducted with the OpenSpires production experts and the contributing academic. The main question on motivations was also answered using the accounts of the same individuals: in the producer and contributor roles. This is because no learners were recruited for interviews. This was for two reasons, firstly because of wanting to try a different approach and focus on the angles of producers and contributors and secondly due to the cause of time limitations (insufficient time remained to follow up on a request to the OUCS team to invite external individuals who had previously sent feedback which had been overlooked). An additional perspective was provided by research reports from the OpenSpires team (Mansell et al., 2010; Geng et al., 2011).

The interviewees stated that they had based their opinions on experiences of being involved in the project from the outset, participating in the preparations of two research reports (Mansell et al., 2010; Geng et al., 2011) and blogs, and on direct user feedback received, e.g. over 100 emails to the contributing academic with opinions and reflections on the philosophy podcasts. Even though the data obtained to answer the research questions on user motivations

for learning did not come directly from users in the learner role, it was gathered through interviews with individuals who had obtained their data or based opinions on direct experiences with learners, hence belief in the credible and genuine character of their accounts. Interviewing contributors also helped with understanding the context of the project.

Semi-structured interviews were the core method of data collection in this study. Selected quotes were used as examples in section 5.3 to demonstrate the data analysis process in action based on the Miles and Huberman (1994) coding and memoing principles and stages/ processes of displaying and reducing data to draw inferences and conclusions. Data gathered and analysed in this case study was also used in the peer review process with a fellow PhD student as a way of verifying what conclusions another researcher would reach interpreting the evidence using the same method (see section 7.5 for details).

Three key members of the OpenSpires team were invited via e-mail and interviewed: the project director, project coordinator and legal officer. The choice of academics to approach for interviews was made after speaking to the OpenSpires experts who recommended a few individuals known to have received most feedback or whose podcasts were among those most popular. These recommendations were followed up hoping for potentially straightforward access (convenience sampling, i.e. where 'advantage is taken of cases, events, situations or informants which are [expected to be] close at hand' (Punch, 2005:187) and also purposive, 'deliberate...with some purpose or focus in mind' (Punch, 2005:187)).

Wishing to speak to individuals from different departments, a philosopher, a physicist and a business studies expert were invited, out of whom the philosopher, whose philosophy series were global number one on iTunesU, accepted the interview invitation. The physicist provided feedback sent to him in thirteen e-mails from nine users but felt he had nothing more to add in an interview other than a comment on his positive attitude to making podcasts available on OpenSpires. The business studies lecturer expressed general willingness to talk but since he had received no direct feedback from users, he preferred not to be interviewed.

The two research reports, in the preparation of which the interviewed OUCS OpenSpires experts participated, described the original project goals (Mansell et al., 2010) and the issues of 'user engagement and impact of the University of Oxford's podcasting activities' (Geng et al., 2011:2). Key findings of the Listening for Impact report concerned the inspirational and motivational influence of Oxford podcasts on learners and teachers around the world, especially through empowering learners to organize and enrich their own learning as 'podcasting can provide learners with opportunities to be in control of their learning' (Geng et al., 2011:9), and also Oxford students '[valuing] relevant content delivered in a format that aids revision' (Geng et al., 2011:9-10). The report highlighted the general popularity of Oxford podcasts (in which marketing and promotion played a role) and their suitability for mobile use: 'over 1 in 7 (15%) accesses of our material are initiated directly from mobile devices' (Geng et al., 2011:14).

The e-mails provided by one lecturer were analysed thematically focusing on

individual preferences and possible trends across users but no quotes were made as their authors were not aware their feedback might be used for research.

5.6.2. Findings

5.6.2.1. Main Question A: What motivates and influences learning with OpenSpires among different users?

The classification of motivations for learning with OpenSpires in this case study was into:

- (1) those linked to supporting formal learning and
- (2) those linked to supporting non-formal and informal learning.

Within formal learning-related factors, the following drove the use of OpenSpires:

- Ambition of performing well in final exams and/ or getting into Oxford.

Based on what the interviewees said a key factor motivating learning with OpenSpires is a wish of (interest in and/ or the goal of) studying at Oxford. Related use of OpenSpires, especially admission podcasts, is initiated and sustained by preparations for final exams or university-entry related activities. It was not ascertained based on the data whether students choose A-levels and degrees subjects in what they enjoy, feel confident about and are interested in, so if their learning is pursued out of intrinsic interest, even if formally evaluated. Admission podcasts were one of the most popular:

‘We know that the admission podcasts are popular and we know that even before we started any of this the admissions people were doing their own podcasts and having a great deal of success with them’ (Legal Officer (LO)).

In the opinion of the OpenSpires Project Director admission podcasts and interviews with current Oxford students on their experiences and what happened in tutorials were one of the most heavily downloaded. When questioned about the use of OpenSpires at a freshers’ fair at Oxford, the director advised, around 60% of first-year students reported having used the podcasts on applying to Oxford before applying.

- Ambition/ goal of (completing one’s course towards) an Oxford degree, which is linked to formal assessment/ qualifications.

An important function of the recordings put on OpenSpires and accompanying materials that was ascertained in the study was helping current Oxford students support their formal degree studies. Current Oxford students are motivated to use OpenSpires for learning by that ambition/ goal of getting their Oxford degree. In the short(er) term they wish to revise for exams, stay up-to date with material, catch up if they had missed a lecture, so they are ultimately working towards examinations which implies assessment-motivated learning. Learning with OpenSpires, then, can be driven by formal assessment even though there is no formal assessment on OpenSpires, however the OER is used in support of one’s formal learning.

It is worth mentioning that students did not use the content as a substitute for lectures, they would not choose to listen to a lecture podcast instead of attending a lecture face to face. This means that students are also motivated to attend face to face lectures, to participate in their community's activities. OpenSpires is used to supplement, catch up on things, and enhance their learning rather than as a substitute for their face to face learning.

- Ambition/ goal of supporting one's formal studies but not necessarily Oxford University related. Some podcasts, e.g. philosophy, are used by students of other universities and those preparing to become students:

'I do get emails from undergraduates and from sixth formers, too, occasionally' (Philosophy lecturer (PL)).

- Interest in/ knowledge of/ curiosity about/ appreciation of the presentation style of the speaker.

What emerged in the study was that users were interested not only in what the podcasts contained but paid attention to how the lectures were conducted and by whom. Users turned out to be paying attention to how lecturers communicate, whether they present and explain things well. Indeed, as there is no possibility of asking questions other than emailing the lecturer with follow up enquiries or replaying the recording, this clarity of communication style of the speaker is crucial. As the philosophy lecturer said:

‘The impression I’ve got is...I mean the thing that I am good at if you wanted to know why mine was successful – I’m very good at explaining very difficult things quite simply...and I have fun doing it, and my lectures are very participative so I get the audience to join in and I think they like that’...‘Usually they say that...[...]...they think that the way I communicate is fantastic’ (PL).

It is also curiosity about the ‘Oxford experience’ (Project Director (PD)), gaining insight into what is going on inside of the University, that was named by the Project Director as one of the main reasons for accessing OpenSpires.

- A wish to reconnect among the Oxford alumni.

Oxford alumni were motivated to use OpenSpires by their wish to reconnect to their old department. More research would be needed, however, to understand what specifically they were looking for in connection with using OpenSpires. It can only be suspected that they would be interested in both reconnecting with the people from their departments and interested in the content provided by their department on OpenSpires, too, since they had studied for a degree in a given subject.

- Teaching, including motivating, inspiring and helping students perform well in their A-levels and university entry (altruism, helping others realize their life plans, ultimate good). The content is valued by educators as high-quality,

research-based, interesting, and re-usable in lessons, especially at the sixth-form stage.

Teachers who work in secondary schools at the sixth form level are among those enthusiastic about OpenSpires as it helps them not only to prepare their students for their exams and university entry but fulfils an important motivational and inspirational role (they are motivated and inspired by the content themselves and it helps them motivate and inspire their students).

Educators are motivated to use OpenSpires by altruism, too, not just wanting to do well themselves as teachers but help others achieve, perform, fulfil their plans and develop their passions.

As far as teachers' work-related learning is concerned, thanks to what OpenSpires is – not just learning materials but recordings of lectures – teachers have a chance to observe, watch, listen to others lecturing, engaging the audience, using various teaching techniques; and draw from these observations, be inspired to inspire others.

- Interest in and enjoyment of content/ subject

The content of podcasts is among the main reasons for downloading them. Individuals select items from within their subject, their area of expertise, things that interest them and things that they enjoy. This applies not only to current students but leisure and lifelong learners.

The main factors influencing the use of OpenSpires were ascertained as:

- Life role and situation in relation to education (linked to goals, plans, ways of using OpenSpires)

Among the most important factors that influence the use of OpenSpires is the user's full-time role, the situation in which they are in relation to education, e.g. being a 6th form student or teacher. The role is linked to goals and plans of individual users, influencing the choice of what they will use for learning and how (intensely) they will use it. Based on the data gathered life-change did not really emerge in the sense of 'catching-up' on learning but the sixth form stage certainly is a key transition period in the lives of students and those around them. 'Catching up' on learning emerged to some extent based on the interview with the legal officer who mentioned feedback from users talking about returning to their subject once they have more time, e.g. after retiring.

- Being Oxford-based and having access to WebLearn

OpenSpires and generally Oxford podcasts can be used in conjunction with WebLearn, the internal Oxford Virtual Learning Environment, meaning that users who are Oxford-based can use OpenSpires as an element of their personalized learning environment.

- Being enrolled as a student at the Department of Continuing Education

Some individuals use OpenSpires prior to enrolling as continuing students. Continuing education students who have used OpenSpires are an example of various motivations and contextual influences combining differently, e.g. being motivated intrinsically by interest in and enjoyment of a particular subject but deciding to enrol formally and pursue courses with the Department of Continuing Education, towards a qualification.

- Content and tools available on OpenSpires, its quality and additional materials, e.g. transcripts

How users will learn with OpenSpires or use it for teaching depends on what is made available to them in the first place. It has also been established that visibility matters, e.g. users sometimes contact lecturers asking them for reading lists that had already been provided with a podcast. A more detailed study would need to be conducted on the exact causes of that, i.e. if these are just users who do not notice the items or whether the items are not visible enough on the site.

The socio-collaborative aspect was absent in this study as there are no social spaces or collaborative tools on OpenSpires.

Transcripts were also mentioned by one of the OUCS experts interviewed as materials that users have enquired about.

- Publicity and advertising: press coverage, global news campaigns, iTunesU and link to Apple

As the interviewed legal officer noticed some podcasts promoted by Apple ended up topping the download charts and featured in the news:

‘By being related to Apple we got an enormous amount of coverage anyway... [...]...It is difficult to say precisely why they [philosophy and quantum physics series] ended up scoring so many downloads but we do know that they were quite heavily promoted by Apple, both of them...The quantum physics one appeared in an iPad advert for example...The number 1 scoring items ended up generating news...Apple’s ability to promote is simply thousands of times larger than ours’ (LO).

Apple promotion and also Apple devices play a role. As stressed by the legal officer, visibility on iTunesU and Apple’s promotion of some podcast series by pre-installing Oxford-podcast-related content on their mobile devices influences the fact that these are accessed and that 15% of all accesses to Oxford podcasts are from Apple mobile devices. The Project Director added that the strength of the Apple brand further contributes to that. How Apple decides what courses to promote has not been investigated but some items are promoted by them more than others, e.g. the philosopher’s second series. It can only be presumed that such exposure and promotion encourages users to check from curiosity what the content might be, however no research was conducted in this study into how exactly that promotion might influence the use of OpenSpires for learning.

- Convenience, possibility of mobile use (links back to Apple), being 'an Apple person' (LO).

The fact that it is possible to 'carry' OpenSpires around is not insignificant, either. Users can download them onto their portable devices, especially Apple devices for reasons already mentioned. Most items are provided as podcasts, which means that one can listen to them on the move.

- Not noticing things, e.g. reading lists.

The lecturer interviewed mentioned being asked for reading lists that had already been uploaded which shows that users do not notice them. Reaching out to find out the answer to one's question also suggests that users are motivated to use OpenSpires, that obstacles like that do not stop those who wish to use it, conversely:

'We've had people interested in having answers supplied to questions which are asked in lectures; I guess that kind of goes to that issue of 'did I really understand what was going on here?'... I mean I guess it is kind of annoying to feel that you know the answer to a question but not be able to check whether you are right or not' (LO).

Summing up, the use of OpenSpires pre-Oxford or while at Oxford by students is related to supporting and enhancing their learning rather than being central to

that learning. 'Post-Oxford' it is due to wanting to find out about other alumni, e.g. viewing 'interviews with Oxonians' or simply love for the subject that alumni use it.

For non-Oxford individuals motivations and influences can be related both to the 'feel' element, e.g. inspiration or leisure, or the 'think' element, e.g. seeking intellectual stretch(ing) and effort. Availability, freeness, visibility and quality of content are the main factors encouraging the use of OpenSpires.

5.6.2.2. Main Question B: What role does OpenSpires play in supporting lifelong learning among different users?

Based on what emerged in the case study OpenSpires plays an important role in supporting learning and teaching across educational contexts and situations: within and outside of Oxford, among formal and non-formal/ informal learners, and among younger secondary school learners and senior individuals.

Making Oxford media content and supporting materials available as an OER has proven useful in supporting performance-oriented learning, especially among sixth-form students aiming to understand more about the Oxford experience and prepare for applying. This role of OpenSpires is significant in the case of Oxford because as an institution it is still viewed by some as elitist whereas the podcasts, especially on admissions, fulfil a 'demystifying' (PD) function, to quote the project director. The podcasts' purpose is to encourage those who might not

view themselves as coming from a traditional Oxford background to apply and to help potential applicants understand that in order to study at Oxford one does not, in the words of the interviewed legal officer, 'require superhuman intelligence':

'admissions were one of the first sets of people within the university to actually do podcasting [because]... we [Oxford University] get criticised a lot for problems with equality of access so they are charged with doing their best to make anyone who might want to come here feel they're able to and part of that is kind of producing for example a podcast that shows you how a power one-to-one or two-to-one tutorial goes because people might feel that's kind of you know a challenging or a difficult thing to get involved with so part of their job is to make people aware that it's really not that bad or...doesn't require superhuman intelligence in order to benefit from' (LO).

By serving as a platform for making these podcasts freely available OpenSpires plays a crucial role in the University's outreach mission to widen access and promote equality reaching the 'able and talented' (PD) from diverse backgrounds from state and public schools, also contributing to the realization of 'expanding access [to higher education as] a priority' stated by the UNESCO 2009 World Conference on Higher Education (UNESCO, 2009:3).

OpenSpires' significance lies not only in supporting or expanding access to formal learning but in facilitating open non-formal and informal learning with

content produced based on research and lectures of some of the most prominent scientists and scholars in the world. World-class knowledge is made universally accessible around the globe also to learn freely, for pleasure or out of curiosity, stimulating interests in various subjects. As the interviewed philosopher said:

‘Usually they [people who had e-mailed to give feedback on podcasts] say that they’ve really enjoyed the podcasts, that they’ve learnt a lot from them...some of them say “I’ve really enjoyed stretching my mind”’ (PL).

At the same time, making lecture content available online does not stop Oxford students from attending face-to-face events. The lecturer who shared e-mail feedback said that among some of his colleagues there was a sentiment against making things available online because of fear that might result in students not turning up to lectures. Interestingly, the Project Director interviewed advised that while some lecturers worried about students not turning up to lectures if lectures are recorded, students worried that lecturers might not bother to turn up and start recording lectures to be able to spend more time on research. Students are not likely to miss face-to-face teaching as that experience is still very much valued at Oxford, there is an ‘expectation of student experience’ (PD), the director added, with discussions and college dinners as experiences that ‘cannot be transferred online’ (PD).

The suitability of OpenSpires content format(s) for ODL and mobile learning – available to use online, download and replay – means making learning more

accessible, inclusive and flexible. For example, the admission podcasts allow individuals located overseas to access the information and guidance needed openly, freely and conveniently instead of having to travel across the world to an open day. Podcasts can be accessed via different routes – from iTunesU, MobileOxford and OpenSpires – and suitability of content for off-line and online use means different possibilities of classroom teaching and learning, including mobile, with different ICTs.

Making an OER like OpenSpires, that is both used by educators and can be used to help them develop in their educator roles, available through ODL and ICT and also under an open content reuse licence results in OpenSpires providing global online access to resources supporting teaching and teachers.

OpenSpires is used in the classroom context and is also suitable for mobile use. The advantages and consequences of mobile learning for education and social cohesion at national and international levels are well summarized by Kukulska-Hulme (2010):

- ‘ - more equitable access to education, for those suffering exclusion for social or economic reasons...
- a culture of lifelong learning; learners taking part in organized education but also habitually using personal technologies to support inquiry and knowledge building whenever the need arises...
- a culture of life-wide learning, whereby individuals recognize the value of learning in unconventional or everyday contexts and are enabled to

realize the full breadth of their potential contributions to society...

- a stronger global, intercultural perspective, fostered by increasing learner mobility which thrives on unconstrained access to learning resources and flexible study' (Kukulska-Hulme, 2010:5).

As the case study established, use of OpenSpires from mobile devices is already significant. This means that OpenSpires contributes to the fulfilment of the EFA goals because, as Kukulska-Hulme notices, 'there is an exceptionally good alignment between the benefits of mobile learning and the goals of Education for All (EFA)' (Kukulska-Hulme, 2010:10).

The freedom of re-use of OpenSpires matters because of the key role teachers play in preparing students at the sixth-form level for examinations and in helping them gain confidence, motivation and inspiration needed in the university application process and learning in later life. Teachers who want to inspire their students draw from the OpenSpires content to learn and be inspired themselves, too, observing and listening to authentic unedited content presenting how Oxford lecturers teach, conduct tutorials, and engage their audience. The inspirational factor is important; as the Project Director stressed: 'this content *is meant* to inspire' (PD). OpenSpires' provision of re-usable educational content from which teachers can learn contributes to the fulfilment of another EFA goal stated by UNESCO based on which:

(11)...Higher education must scale up teacher education, both pre-service and in-service, with curricula that equip teachers to provide

individuals with the knowledge and skills they need in the twenty-first century' (UNESCO, 2009:3).

Provision of content that supports learning and teaching among educators is in the interest of Oxford as an institution as teachers evidently contribute to promoting more equitable access to Oxford and promoting Oxford itself.

In relation to more specific purposes to which OpenSpires can be used, as the interviewed legal expert advised, the standard of English used in an academic context makes OpenSpires suitable for use by educators as an example of 'good English' (LO). The communication skills and presentation style(s) of OpenSpires contributors are valued generally by users, even by those learning non-formally, as simply inspiring.

OpenSpires plays a role in supporting learning in later life, both among Oxford alumni and generally older adults. As the interviewed philosophy lecturer observed:

'[At the Department of Continuing Education] all my students are middle aged roughly speaking, I get very few of 30s, 40s, but most of them are 50s, 60s, 70s...' (PL).

A proportion of these students learn with lectures available on OpenSpires or enrolled in the course, as the lecturer suspected, after listening to one of the lectures.

Some users value the mere possibility of engaging in learning, 'stretching one's mind' (PL) as one user put it in feedback on the interviewed philosopher's lectures.

It emerged that users value good communication style and want not just relevant and interesting content but lectures presented in an interesting, clear, engaging way by individuals who can make it more enjoyable for them, who can motivate and inspire them. This means that there is a need for and interest in content that helps users gain insight into not only *what* is taught at Oxford but *how* it is taught. Through making content available in the form of often authentic unedited podcasts OpenSpires allow users exactly that: to see how things are taught, not just what is taught.

Using the classification of Houle (in Knowles, 1973), it can be said that OpenSpires support goal-, activity- and learning-oriented approaches to learning. Users in formal learner roles are driven by specific goals linked to their roles, e.g. passing exams, their learning is strategic and OpenSpires used to achieve particular goals, e.g. watch a missed lecture. Alumni reconnecting with their old departments could also be described as mainly activity-oriented, the anticipated activity being interactions with people from their organizations, or perhaps mixed activity-/ goal-oriented as the goal of using OpenSpires is linking back to people and places. Those who are interested in specific subjects and enjoy learning with OpenSpires could be described as taking a learning-oriented approach.

Thanks to OpenSpires Oxford alumni can check the work and people at their old departments. Some feel it helps them go back to their student years or rediscover and return to a subject they had to put aside:

‘We get people saying ‘I studied the subject in question twenty years ago but I have been doing something else now for a while...now that I am retired... I am able to return to it and see what’s happened in the intervening years and get back into something that I enjoyed previously’... I think it has – from the feedback we’ve got – demonstrable benefits in bringing people back to subjects which they may have left because they’d moved into other areas’ (LO).

Oxford podcasts have proven to be very popular generally, the success of some series promoted by Apple greatly exceeding the contributors’ expectations:

‘Somebody videoed it [a standard lecture] and put it up on the podcast...I didn’t even think about it for nine months. Then I hear I am global number one but that’s only from a techie chap in the department [saying:] ‘Did you know you’re global number one?... I mean the first question I asked when I heard that was – is that a hundred a week? It’s actually 18,000 a week, but you see, I’ve got no idea of what these things mean, and all I did was give a lecture’ (PL).

Some, according to the Legal Officer, believe that agreeing to have their lectures made available under an open content licence might help academics in REF

assessment or getting funding:

'I expect that...If what I believe can happen does happen then I think we will be in a position of making more and more stuff available under open content licences because it will be easier to make public impact arguments on the basis of reuse than it is simply on the basis of access so I expect that when people start looking hard for what they are going to put on their REF public impact studies they are going to be more – and this is a guess on my part – but it's likely that they're going to be more into the idea of making stuff available under open content licences just because it's easier to make that argument for impact on that basis' (LO).

OpenSpires are thus of importance for the university generally and specific departments and academics because of public impact, REF assessment and also the personal satisfaction of contributing to the noble cause of making world-class knowledge university accessible.

OpenSpires supports learning to prepare for the future, learning in the present, and helps reconnect to past learning. It proved significant at some key transition stages in life, especially from the sixth-form to university. It also emerged as valued by current Oxford students as a repository of content and resources linked to their WebLearn learning environment used to catch up on missed lectures and aid revision and preparation for exams, not resulting in students not turning up to face-to-face lectures but conversely, supporting and enhancing their studies. Students and academics from other institutions use it, too, to

support both their learning and teaching. Whether used by alumni out of sentiment or those returning to a subject area of studies or passion that had to be put aside at some stage of their lives, OpenSpires helps individuals to reconnect to what they learnt in the past.

Through allowing individuals at various life stages with different ambitions use the content to realize their plans, OpenSpires supports various ways of learning individually and collectively, focusing on goals, activities or learning itself, merely for enjoyment and expansion of one's horizons. Promotion of open and free OpenSpires or Oxford podcasts in the media means making learning opportunities 'more visible...[and]...removing obstacles to access...[thus promoting]...a culture of learning [in which diverse forms of learning are valued' (ESAE, 2007:23).

5.6.3. Reflections

The objective of answering the research questions posed in this case study using primary data was reached. It was practical and efficient to conduct interviews with the OUCS staff and the lecturer who were approachable and shared information readily. Both research questions were answered based on the interviews with those on the contributing side who reported on the feedback provided to them directly by users. One critical reflection is, however, that the feedback provided proactively, sent voluntarily by users to lecturers or the OUCS, is mainly positive, even if accounts of problems encountered are given. As the interviewed lecturer observed:

'I never hear from the people who loathed it, they wouldn't bother to contact me unless they absolutely hated it or absolutely loved it, and if they absolutely hated it they are not likely to contact me so I would say there's a limit to what you can learn from the e-mails I get' (PL).

If a more direct and comprehensive view on user perspectives were to be obtained, further research should be conducted within which more re-active feedback would be collected also from non-Oxford based users, e.g. obtained in response to a survey or an interview invitation. Such feedback would allow for a more in-depth enquiry into user motivations for learning and teaching with OpenSpires. The insights of those interviewed from the OUCS were also based on some feedback obtained re-actively, e.g. surveys conducted and discussed in the research reports (Mansell et al., 2010; Geng et al., 2011).

The perspectives of those on the contributing side enriched the understanding of the role that OpenSpires plays in supporting lifelong learning among different users, including the professional development of those whose lectures were available.

In the OpenLearn case study the nature of motivations and approaches to learning proved to be strongly tied to users' lives outside of OpenLearn, to their previous experiences and attitudes influenced by the world aside from OpenLearn. It would be interesting to conduct interviews with OpenSpires users to gain insight into their learning worlds and what role OpenSpires played in them.

The findings on the role of OpenSpires in lifelong learning were interpreted and discussed in a similar way to those in the OpenLearn case study – based on the literature reviewed in the initial sections of the thesis relating to lifelong learning and various motivations for learning in adult life.

No registrations on OpenSpires - hence no readily available lists of user names and addresses for participant recruitment - was one of the main reasons for first turning to the contributors who were already known from an OER seminar where a presentation on OpenSpires was given. An alternative way of reaching individuals might have been posting invitations to interviews and surveys on OpenSpires but that was not done mainly due to the experience of a very low response rate to a similar invitation on the MPF website.

A significant group of OpenSpires users turned out to be formal students and teachers. In particular those at the key stage of the sixth form were motivated by performance, goals and achievements (outcomes) linked to their examinations and university entry. That was in contrast to what was established in the OpenLearn study where motivations and influences, although they differed depending on the users and stages in their lives, were mostly intrinsic and linked to interest in a subject, enjoyment of learning as a process and beliefs in the value and importance of learning. OpenSpires appears to play a crucial role in helping these people with the transition into university life because of the insight and guidance it provides, and because it can be re-used in the classroom context because of the open content licence. One possible recommendation for further research would therefore be to conduct classroom

studies on teaching with and learning around OpenSpires material since it emerged as so significant at the sixth form level. As time is important in formal education planning, continuous research should be conducted at different stages of the school year to establish whether different users use OpenSpires (more) at different times, e.g. when exams approach; what they use, what for and how.

Because of the format in which OpenSpires is produced it can be used flexibly, replayed, downloaded and used in mobile learning. This is important in today's age of increased use of mobile devices for learning and implies an interesting option of conducting a strand of research focusing on the use of OpenSpires in mobile learning.

OpenSpires emerged as important also for those pursuing non-formal learning. Because it is different from OpenLearn in terms of key format of delivery of content and different features, it can be used alongside OpenLearn. It can be used as an element in users' (lifelong learning) worlds, for those in Oxford and those non-Oxford based, supporting and enriching their learning, whether pursued formally or non-formally.

5.7. Case study: Middle East Technical University

OpenCourseWare

5.7.1. Introduction

5.7.1.1. Focus, objectives and questions

The focus of this case study was on exploring what role the Middle East Technical University OpenCourseWare (METU OCW) as an OCW-type OER plays in the lifelong learning of different users mainly in the Turkish context as it is produced mainly in Turkish (as well as English). The issue of METU OCW's role was addressed more directly through the main role question rather than through detailed investigations of motivational issues among the OCW users due to the nature of the participants involved. The 'role' question, adapted to the METU OCW context, was thus the main research question of this case study:

What role does METU OCW play in supporting lifelong learning among different users?

The research question on motivational issues and influences was nevertheless posed, too, to be answered so far as the data gathered allowed that:

What motivates and influences learning with METU OCW among different users?

The six sub-questions were asked:

What are the reasons for and goals (purposes) of learning with METU OCW?

How does the online and offline context influence learning with METU OCW?

What approaches to learning can be observed among different users of METU OCW?

What do users value most in learning with METU OCW?

What are the criticisms and problems that users encounter on METU OCW?

What are different users' needs and interests?

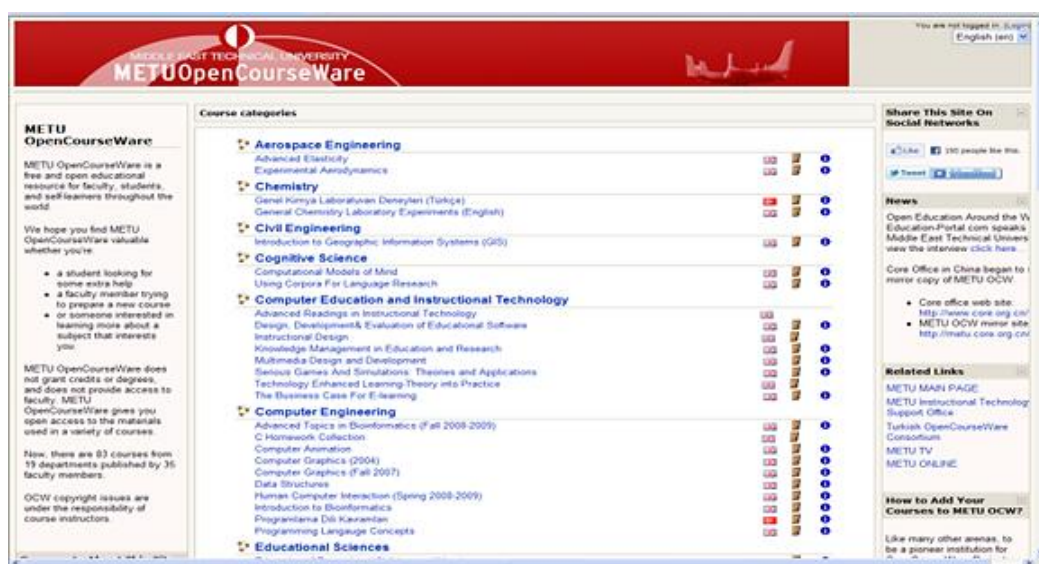
The findings are presented in the form of answers to the two main research questions, beginning with the 'role' question. The answers to the sub-questions enhanced the process of arriving at the findings but are not shown in the case study since the mechanism of answering main questions based on the answers to the sub-questions has already been shown, to make the presentation more compact and because in this case study the research questions were addressed more directly from the data gathered.

5.7.1.2. Description of the research site environment and the rationale for the selection of METU OCW

One of the key issues in this thesis was variety and diversity, both in relation to various users of a given OER and variety of OER looked at. METU OCW, available

through <<http://ocw.metu.edu.tr/>> (METU ITS, 2009-2012), as seen in screenshot 5, was chosen as a representative of OpenCourseWare in this thesis. Launched in 2008 by the Middle East Technical University in Turkey (METU), founded in 1956, already established as one of the best universities in Turkey, METU OpenCourseWare (METU OCW) is described as:

‘a free and open educational resource [of academic course material and courses taught at METU] for faculty, students, and self-learners throughout the world’ (METU ITS, 2009-2012).



Screenshot 5. METU OCW (2011)

Users who, according to the site’s introduction, might find the content useful could be students ‘looking for some extra help’, faculty members ‘trying to prepare a new course’ or ‘someone interested in learning more about a subject that interests [them]’ (METU ITS, 2009-2012).

At the time of gathering data (spring 2011) there were 73 courses available on METU OCW published by 35 faculty members from 19 departments. Some content on METU OCW is accessible as lectures in pdf or word documents and some is video material. Core user groups are current METU students and ‘instructors’ (educators) from other universities in Turkey, instructors being a term favoured by the expert interviewees themselves.

The reason for choosing METU OCW was also its attachment to a Turkish higher education institution so, contrary to the three OER investigated previously, this one was attached to a non-English speaking organization (although there is material available in English on METU OCW). The Turkish educational context is an interesting one because of the demographic situation in Turkey, because of the ‘young Turkish society’ with the (average) annual population growth rate of 1.2% between 2005-2010 (United Nations Statistics Division, 2012). Therefore, according to one of the METU faculty members interviewed, demand for higher education is high, in response to which the number of higher education institutions created in Turkey since 2007 almost doubled.

The purpose of selecting METU OCW was to explore an OER different to the others included in the research in terms of the format in which it is produced: as an OCW. Its scope was not intended to be large therefore it might serve as a foundation or pilot for a larger study in which learners from within METU or outside might be involved.

Convenience sampling played some role in that choice as some work on

researching Turkish OER had already been conducted within OLnet led by a visiting fellow from METU. That fellow became one of the invited and recruited experts.

The format of METU OCW and access to specific type of participants allowed for a slightly different approach to gathering data via interviews (from experts rather than learners).

One of the characteristics of METU OCW is its international character and innovation. One of the reasons for producing OCW rather than a different type of OER was the fact that the MIT OCW was popular among METU-based users, as stated by the interviewed METU Associate Professor. METU encourages its faculty members to publish courses on METU OCW while recognizing that there is a 'need to increase the number of high quality courses published and reach more learners...[whereas the copyright issues are]...'under the responsibility of course instructors' (METU, 2009-2012).

Individual lecturers who wish to publish courses can ask the METU Instructional Technology Support Office for help with developing new content or publishing existing materials. METU with its OCW is a member of the Turkish OpenCourseWare Consortium that was formed out of 24 member universities in October 2006.

5.7.1.3. Methods of gathering and analysing data and participant selection

Primary data for this case study was gathered through semi-structured interviews that were conducted on the phone with two participants, transcribed and analysed using the qualitative data analysis framework (Miles & Huberman, 1994).

The two participants, including one Associate Professor and one Research Fellow, were METU faculty members. One of the reasons for selecting the METU faculty members as experts and approaching them was their belonging to the Computer Education and Instructional Technology Department at METU involved in producing METU OCW. The Research Fellow was also a visiting fellow with OLnet, so allowed for straightforward access. Access to the Associate Professor was facilitated by the Research Fellow.

The interviewees who had worked with METU students directly were asked about their opinions and insights based on their own experiences and user feedback received internally within METU and also their reflections based on the results of surveys and studies they were involved in on enablers and barriers to producing courses for the OCW among higher education lecturers in Turkey. The contributions of the two experts were also based on the usage data information available on the website. The monitoring tools on METU OCW track site visitor locations. There are lists of countries with most accesses courses and most visited courses charts.

The main METU OCW website was explored to understand the context of the OCW environment and compare it to the MIT OCW (remembering that the MIT OCW had already been popular among METU students and faculty members before the METU OCW was launched). Interviews available online with the Associate Professor participant were used to help understand the research context.

The expert interviewees had previously been involved in a study which entailed sending out a survey to the Turkish OCW Consortium's 48 higher education institutions aiming to gain insight into the role and perceptions of instructors and faculty members involved in OCW contributions, as reported by the interviewed OLnet expert.

Although the two interviewees were not users in learner roles, it was decided that data collected from them could give some insight into users' views because of their close involvement and daily contact with METU students who use the METU OCW as part of their formal learning. This can be directly as a result of experts' encouragement or because they are incorporated in the curriculum.

No external (non-METU) users were recruited to concentrate on the use of METU OCW in conjunction with formal learning because the experts from within METU were available to share their daily work experiences. It was therefore decided that advantage ought to be taken of their expertise, shifting attention slightly towards the 'inside' of METU.

There are no registrations on METU OCW and no socio-collaborative tools. Therefore it was not possible to study the output of users online.

Another important reason for that was the timing of the interviews that coincided with the experts having conducted relevant research not long before and planning further research on similar issues. The experts' involvement in related pan-Turkish research also meant potential insights in relation to those in the educator or dual educator-learner roles from organizations other than METU.

5.7.2. Findings

5.7.2.1. Main question B: What role does METU OCW play in supporting lifelong learning among different users?

Because of being linked to the internal METU system METU OCW is used in conjunction with formal studies by METU students, fulfilling an important role in supporting these studies. This includes access to preparatory materials for some classes and lab work, providing a space for uploading homework assignments and also a repository of course content which means also providing access to resources that were used during lectures that students may have missed. METU OCW thus fulfils an important role in:

- Supporting formal learning among METU students, e.g. through supporting preparation for specific cognitively-focused tasks such as working through chemistry simulations. METU students can use METU OCW as part of their learning environment, the OCW becoming an element in their learning system somewhat by default, which makes it more convenient for them than using another OCW.

Within METU OCW such interactive content is especially valued:

‘we recorded chemistry labs sessions, so for example, according to our course statistics those chemistry labs experiments are on the top. Every semester thousands of students are taking those chemistry lab courses so that’s why we observe that it’s one of the top course materials’ (Associate Professor (AP)).

- Providing courses from across different subjects catering for different interests and needs.

There are various courses on METU OCW and many visitors from various higher education institutions, both technical and non-technical ones. This implies interest across a whole spectrum of subjects, including social sciences that are now an element of the METU OCW even though METU is a technical university.

METU OCW is accessed from all over the globe, raising the visibility and international profile of METU as a higher education organisation. In this way the

existence of METU OCW:

- Promotes METU as an organization internationally, showing the world METU courses, raising the university's profile and the quality of its courses, and helping others create OER, e.g. Chinese CORE mirror site.

As METU promotes open global access to high-quality teaching, its raised profile on the international educational scene appears to be a deserved reward. This further exposes the production of the OCW as a win-to-win situation both for the organization producing it and its non-METU based users as the sharing contributes to generating quality, based on the opinion of the Associate Professor interviewed.

The METU OCW team was also able to contribute to creating other OCW:

'The CORE consortium – the Chinese Open Educational Resources – they asked, they made a request, that they are mirroring different university courses in their portal so they asked our permission to make a 'mirror' of that [METU OCW] site, then we gave them permission, they copied our courses and they are publishing but unfortunately we haven't had any chance to follow...how it is going, maybe if we ask them they will inform us about the usage statistics but unfortunately we haven't had any chance to ask [yet]' (AP).

There are many new higher education institutions in Turkey who experience a problem with shortage of course materials and METU helps with addressing it by providing high-quality research-led course materials freely and openly through the METU OCW.

Educators from other organisations can also develop professionally, not only facilitating their students' learning but learning how to create courses themselves, thanks to the possibility of observing the structure of courses and specific units on METU OCW. The OER initiative therefore:

- Contributes to helping those who teach develop in their educator roles.

According to the experts interviewed there is a shortage of course resources and materials at many higher education institutions in Turkey. This is one of the reasons for turning to METU OCW as a repository of high-quality research-linked higher education level courses that can be used by other lecturers (subject to individual instructor copyrights). As the OLnet fellow interviewed stated, a significant group of METU OCW users are new university teachers:

‘especially novice instructors...especially examining the course structure, syllabus’ (Research Fellow (RF)).

Commenting on the situation, the Associate Professor advised:

'In Turkey in recent years several new universities opened and those universities do not have enough resources, I mean, they don't have enough faculty members and also they don't have enough resources... they don't have books, quality course materials etc., so that's why our target is especially undergraduate education, all fields' (AP).

Based on the expert interviews, contributing to creating the OCW helps academics in feeling a sense of contribution to educating the world:

'Personally I mean it's also as I said the research but it's also a kind of service to my university as well as service to everybody not only in Turkey but all over the world; I mean visiting the website and seeing the statistics, people from all around the world coming to this website, getting the course materials and benefiting from the course materials. This is personal kind of satisfaction I mean you feel that you are making some impact on people all around the world, it's a good thing, so research one thing and personal satisfaction another thing' (AP).

The interviews demonstrated that METU OCW:

- motivates individual contributors by the feeling of contributing to 'educating the world', resulting in benefits for the sharing academics and organization alike:

‘According to [webometrix rankings] results METU’s ranking is going up because we share our resources; I mean we share our theses, our publications, publically with everyone, and we share our courses so those kind of open sharing increase our visibility, my university’s visibility level so for example METU is the most visible university in Turkey according to webometrics results which is a good thing for my university, it means we are contributing to academia or other world and our work has some impact, people get benefit from METU scholarly activity so that’s why this is really important for our university...Also we are sharing our resources with local universities, universities in Turkey, so that’s why it’s a kind of community work of our university; I mean our university is not only conducting teaching or research but also we have to contribute to the society so this is a good community for my university...that’s why this is important’ (AP).

Since METU is one of the top universities in Turkey, often in the top three higher education organisations in the charts, users trust in the quality and credibility of the content provided on the site.

The role of METU OCW in supporting inclusive use for learning and teaching also consists in:

- Being open to different contributions and users of different languages.

What an individual can use depends on whether they know the language in which a course is provided. Until the time of the interview only courses in Turkish and English had been created within the METU OCW. In principle, however, as the interviewed Associate Professor advised, it is possible to contribute a course in any language:

‘If someone would like to upload course materials in other languages, METU OCW is open to it. But we haven’t received such a request yet’ (AP).

Contributors are free to decide on what and how to make available which is respected by the producing team:

‘[for METU] we don’t have any basic requirements, everything is welcome...a professor may just want to publish his or her syllabus but...we are hoping that the professor is going to add some more materials, so we don’t restrict our faculty members, anything is welcome because one is better than zero, if there is no material, there’s no benefit’ (AP).

Further potential of the METU OCW to support lifelong learning among various users consists in its continuous expansion. There are plans for more interactivity and, as the interviewed professor put it, ‘smart’ course content:

‘We would like to increase the number of for example simulations,

number of highly interactive materials and also we would like to include some smart courses...by smart courses I [mean] something like the Carnegie Mellon OCW project; In CMU their courses are not study courses; actually the system follows your progress, it scaffolds your activity...so we would like to increase the courses so it's going to be kind of self-learning system but at the same time there will be some intelligence on the course management system that is going to guide you when you make a mistake, it's going to give you feedback so it will be, I mean the system is going to be like a teacher or a professor...the CMU – their courses are something like that and our courses are going to be something like that...Of course there will be many study materials but also at the same time simulations, some kind of experimental labs, e.g. virtual chemistry lab, this is in our plan...this relates to METU and also the national one' (AP).

One way in which METU OCW can be used is also to support one's 'self-learning' (RF), as the interviewed Research Fellow put it.

Finally, METU OCW's role in supporting lifelong learning among various users consists in its:

- Open provision and free access to (high-quality research-based) learning opportunities, interestingly with a 'zero' budget, contributing to the creation of a culture of learning across subjects.

METU OCW project has no budget and the idea is for it to grow based on the use of university resources already available within the organization. The Instructional Technology support office (where there are only three people) plays a significant role as it both helps individual academics in digitalizing their courses and provides technical support. It is demanding but at the same time a great example of an OER/ OCW initiative that can grow, expand and be successful with no budget specifically assigned to it. By providing open and free access to high-quality structured learning opportunities METU OCW helps in pursuing the Education for All (EFA) goals (UNESCO, 2009; Kukulska-Hulme, 2010), more on which is presented in the final section discussing the findings of all case studies.

5.7.2.2. Main question A: What motivates and influences learning with METU OCW among different users?

Based on the two expert interviews, the main motivation for learning with METU OCW is:

Motivation linked to formal learning: formal assessment, formal qualification, achievement, desire to perform well, which can be linked to specific short-term or longer term academic plans and goals, e.g. examinations and obtaining a degree (ascertained based on data and insights relating to formal METU students).

METU OCW users who are also METU students use the OCW to support their formal course learning, their motivations to use the OCW are closely linked to their motivations to study at METU in general. Assessment and formal

qualifications would therefore be a key motivator for their learning, confirming the claims of Gaskell (2008).

It is goals like completing a homework assignment, preparing for a lab session or reviewing slides from a missed lecture that drive the use of METU OCW by METU students. It could therefore be said that users are motivated to use the OCW by formal assessment even though there is no formal assessment on the OCW but because their use of the OCW is linked to their use of the main METU system for their formal studies. Individuals can use the OCW to 'pre-learn', i.e. familiarize themselves with reading lists or prepare for upcoming courses, or to 'post-learn', catch up on things, e.g. access previous lecture slides.

In relation to this availability, accessibility and convenience of using the OCW by METU students, the framework of Preece and Shneiderman (2009) is suitable, in which the visibility of certain features was ascertained to be a factor influencing users' participation. Indeed, for those from within METU the OCW's link to the internal VLE makes the OCW more visible and more convenient to use by METU students. One of the tools that METU students have access to within the METU VLE that non-METU users do not, is chat, even if it is not used heavily:

'Sometimes I am using the chat tools with students, sometimes they are asking questions through this chat tool but it's not used very efficiently I can say, sometimes we are putting some announcement or some discussion on the forum' (RF).

A significant group of METU OCW users were lecturers from other universities in Turkey who use it to facilitate the learning of others, to teach their own students, using METU OCW courses as teaching resources because of their availability, high quality and research-based orientation, and a shortage of course resources at their own organization. These users (lecturers, instructors and faculty members of other higher education organisations, mainly in Turkey) are motivated and driven to use METU OCW by:

- their duties linked to their teaching jobs and a wish to help others pursue formal learning.

Using the classification developed in the pilot study, motivations to use METU OCW among individuals are expertise-related.

The main factors that influence the use of METU OCW are:

- (1) Educational role and situation, e.g. being a METU student or being an academic from another Turkish university, which is also linked to availability of time that can be dedicated to learning. Users simply 'have to' use the system sometimes, e.g. to upload assignments or because it had been incorporated in their curriculum in some other way, becoming part of the course. Being linked to an educational institution in general, not necessarily just to METU, influences the use of METU OCW:

‘Since we have no user registration system in our OCW, we unfortunately do not have demographic information. But we do know that most of the visitors come from academic institutions, so we assume that they’re either university students or faculty’ (AP).

(2) Subject studied.

One of the most popular features on METU OCW was the chemistry lab with simulations of experiments. Simulations are believed, the Associate Professor claims, to help students in understanding ideas, grasping concepts and preparing for practical work:

‘with our virtual lab, students will be able to first model the experiment on the computer, helping them to become familiar with the activity so that when they come to the lab they’ll be able to conduct the experiment more effectively’ (AP).

(3) What is available on METU OCW and how the course is designed:
what is made available by the author(s) to use within it and how it is organized, including in what language.

As the content is provided as structured courses it lends itself well to supporting structured learning but not all courses on METU OCW are provided in the same form, there is no ‘standardized’ course format or a template to follow on how to prepare courses. It is up to the individual lecturer or faculty

members how these are laid out, hence the variety between some of the courses being more audio-visual, some simulation-based, some listing previous exam papers, and others basing on text in various forms and formats, including photos of hand-written lecture notes. The rule of openness applies in accepting content from lecturers and academics:

‘Any kind of material is acceptable to our OCW. Faculty mostly provide syllabi, course notes and sample exams. We also record videos of two or three courses every semester, and we’re working on developing some simulations for foundational courses such as chemistry and physics’ (AP).

(4) Quality of course content and the fact that it is based on or related to research, which is especially important for other higher education faculty members who rely on METU OCW for course material creation.

5.7.3. Reflections

The objectives of this case study were reached in terms of producing answers to the research questions based on primary data. However, the data was gathered through interviews conducted with individuals on the expert and educator side rather than those in the direct learner roles. The reasons for that were given in the introduction: it was mainly access and convenience.

It was felt that the main question on the role of METU OCW in supporting lifelong learning among different users was answered more comprehensively because of expert involvement in comparison to the motivation question.

This was intended to be a ‘smaller’, exploratory study. The data gathered from experts on learners was sufficient for the exploration of the research context and building sufficient understanding to answer the questions while acknowledging that understanding might be deeper if the research is continued and learners interviewed directly.

METU appears to play a key role as an established university in Turkey and METU OCW is particularly important because of the course content it makes available: that is openly and freely accessible, high-quality and based on research.

The findings of this case study suggest that producing and using METU OCW is beneficial for the creators, educators and students. Therefore conducting more research into different ways of learning and teaching with the OCW might be of value especially in the Turkish context.

5.8. Case study: Wolne Lektury of the Modern Poland Foundation

5.8.1. Introduction

5.8.1.1. Focus, objectives and questions

The focus of this case study was on motivations for and approaches to learning and facilitating learning with Wolne Lektury (WL; in English: Free Obligatory (School) Readings) OER of the Modern Poland Foundation (MPF; in Polish: Fundacja Nowoczesna Polska (FNP)) and the role that providing these resources by the Foundation plays in supporting lifelong learning among diverse users.

Despite knowing from pre-research conversations with the MPF team that the site was used by pupils and teachers, the initial aim was to recruit mainly learners. However, the focus extended to educators, too, as those who responded to the invitation posted on the MPF website turned out to be teachers. Only through one of the teachers was it possible to reach those in the learner role: pupils.

The following research questions were posed in this case study:

What motivates and influences learning with WL among different users?

What role does WL, provided by the MPF, play in supporting lifelong learning among different users?

The answers to these questions, presented in the findings section, were arrived at based on detailed responses obtained to the following six sub-questions:

What are the reasons for and goals (purposes) of learning with WL?

How does the online and offline context influence learning with WL?

What approaches to learning can be observed among different users of WL?

What do users value most in learning with WL?

What are the criticisms and problems that users encounter on WL?

What are the needs and interests of users of WL?

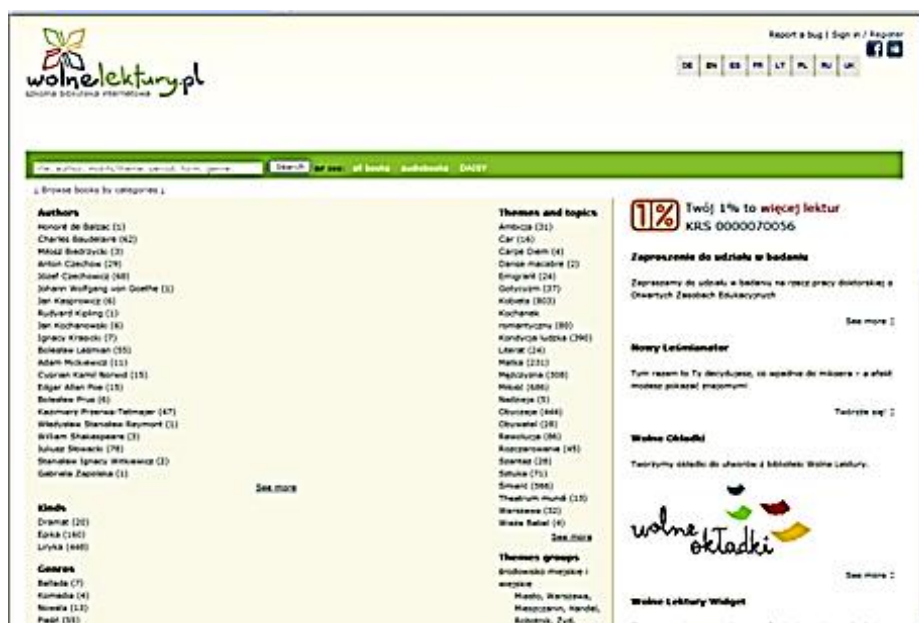
The answers to the sub-questions are not presented because, as explained in the OpenSpires and METU OCW case studies, the mechanism of answering main questions based on the answers to sub-questions was already shown in the OpenLearn and OpenStudy case studies and to make the presentation of the case study more compact.

The question on the role of WL is presented as first.

5.8.1.2. Description of the research site environment of WL and the rationale for the selection of MPF OER

The MPF OER include several groups of resources from among which the Wolne Lektury is the most heavily used one, described by the Foundation's Chairman as their 'flagship' project and the engine of the organization's activities. Resources provided within WL are obligatory secondary school level reading texts for Polish schools that are accessible openly and free-of-charge through the Wolnelektury.pl (FNP, 2007-2012) website (as seen in screenshot 6.) launched in 2007 as a Web library:

'[Wolne Lektury] provides the visitors with the school readings recommended by [The National Ministry of Education] which entered the public domain. The literary works are drawn up, annotated and available in several formats....Under the Polish law they can be read online, downloaded, cited and shared' (FNP, 2007-2012).



Screenshot 6. Wolne Lektury (2011)

Sharing within the public domain concept means that 'every literary work available on Wolne Lektury website...is not covered by [the Polish] copyright law and can be freely used with no legal consequences. [...] If the texts are provided with some extra materials (annotations, motifs) which are copyrighted, then the extras are accessible under Creative Commons Attribution – Share Alike 3.0 PL licence' (FNP, 2007-2012).

The project was set up for the public good, its nature is not commercial and it is being co-produced by volunteers such as teachers or undergraduate students, mainly of Polish. The Polish Ministry of Culture and National Heritage, the Ministry of Education and Sport and the Polish Writers' Association are all honorary patrons of the project. The MPF works with the Polish National Library to conduct the digitalization and proofreading of the texts before they appear on WL.

On the WL website users have a choice on how to access texts, e.g. as versions to read online or download as audiobooks, pdf or office documents. Texts are the core content. They are surrounded by resources to support and enhance learning and teaching with these texts, mainly descriptions of literary motifs. The function of the motif, e.g. 'patriotism', is to guide the reader towards building one's own understanding and interpretation of a particular text without providing ready answers. A key innovation of WL is 'the possibility of searching for the texts with the application of variety of criteria: traditional ones, such as the title, author, period, form and genre, as well as unusual ones, concerning many literary works at once, i.e. literary motifs and themes' (FNP, 2007-2012).

The Foundation believes these features within WL support creativity: '...[providing] the reader with devices that come in handy when creative thinking is needed' (FNP, 2007-2012).

Another function of WL suggested on the site is helping users in organizing their work using for instance virtual bookshelves, i.e. groups of texts worked on organized into lists. The WL team's suggestion is for those to be created by teachers who can 'send the adequate hyperlink to [their] pupils and they can download the complete set of readings with one mouse click' (FNP, 2007-2012).

The fact that WL provides resources to support the learning and teaching of a main subject at Polish schools – Polish – was not insignificant in selecting the resource, alongside my interest in literature and my previous education in

Poland which helped me to understand both the content of WL and what users might be looking for in it.

The profile and mission of the organisation that leads the production of WL was crucial in relation to the focus and aims of this thesis. The mission of the Modern Poland Foundation is 'to give thousands of children what is most valuable: knowledge and abilities letting them understand the modern world and take advantage of its opportunities' (FNP, 2010). The MPF was established to support and promote education through championing free and open access to educational resources, access to technology, and digital literacy in Poland. Helping young people understand technology and use it is at the heart of the Foundation's mission. All projects of the Foundation are co-created by volunteers who are usually teachers and all resources are available openly and free of charge. Thus the Foundation's mission and activities align with those of the Open Educational Resources movement, reflecting current trends in lifelong learning.

The educational context of Poland is interesting for a case study on openness in education as it is one of the former Soviet countries. One of the biggest in Central and Eastern Europe, with the population of over 38 million, Poland is also one of the strongest economies in the CEE region. Strategically positioned between some of the former Soviet republics and Germany horizontally, and the Baltic Sea to the North, it is a country whose history is as interesting as it is complex. Formerly under the communist regime it is a democracy today but the communist legacy appears still present mainly as far as mentality is concerned,

resulting in different approaches to openness in for instance culture or education than some of those in the 'western' world. The concepts of ownership and private property were distorted in the communist times (from the free market economy perspective). Therefore to those who belong to the generation that was educated in those times some ideas that are being promoted by the OER movement today might seem too radical or, ironically, too similar to some of those promoted by the communists, e.g. the 'freeness' understood as not having to pay for education but arising from different reasons and to different ends.

5.8.1.3. Data collection and participant recruitment:

**open online invitation to semi-structured
interviews followed by convenience sampling for
direct semi-structured observation**

At the time of commencing the study there were no socio-collaborative learning tools or registration of user accounts on the WL website so it was not possible to 'see' users on the site. That is why a request was made to the Foundation to post an invitation to participate in the study on their website. The low response rate of only two individuals (both teachers) was in line with the expectations of the WL project co-ordinator according to whom, based on the Foundation's previous experiences with similar research invitations, the response rate would not be high.

Two semi-structured interviews were conducted on the phone. One interview

was conducted with a Warsaw-based secondary school teacher who turned out to be a volunteer contributor to the WL site, annotating literary texts with motifs, using the WL to support classroom teaching and also to enhance her own professional development. The other user was a Polish trainee science teacher based in the UK who used WL for leisure rather than teaching.

Following this a request was extended to the Warsaw teacher to invite some of her pupils to participate. The request resulted in some interest, as the teacher advised, but no users directly contacting me. Therefore I approached the teacher again with a request to conduct observation during a lesson that would be linked to the use of WL for learning and teaching, trying to use the opportunity to gather data directly from users in the learner role. The request was approved following which I visited the school in which the Warsaw teacher works for the purpose of data collection through direct semi-structured observation.

The direct semi-structured observation that took place during a Polish lesson (that was to serve as a basis for a homework assignment in which pupils had to use the WL website) was conducted on the twenty pupils who were present during the lesson plus the teacher. Being guided by the six detailed research sub-questions, the idea was also to remain open to other issues that might emerge during the observation, which was further enhanced by the pre-lesson and follow-up conversations with the teacher.

The teacher had used WL during lessons and for homework assignments prior

to the observation so the WL was not introduced specifically for that purpose, the pupils were already familiar with it. The teacher, however, designed the lesson in such a way as to align the original lesson plan and topic with my wish to understand the pupils' use of WL. This resulted in conducting the lesson in such a way so as to guide the pupils towards and prepare them for homework with the use of WL.

This method was not in the initial research design and was only used in this case study because of the low response rate following the initial website invitation. While reflecting on that and considering other possibilities of recruiting participants, observation occurred as an interesting option of obtaining data directly from those in the learning role – in this case secondary school students. This is because their school-based learning is led and organised by the teacher and happens in the classroom apart from being supported by their learning at home, between lessons, while tackling homework assignments.

Opting for direct semi-structured observation resulted in - mirroring the semi-structured approach in interviews - a possibility of free and open observation of pupil behaviour, interactions, and making sense of the discussions held in the classroom. This could be conducted while having some pre-set ideas of what needed to be established, e.g. how the lesson would have prepared the pupils for their later work with WL resources, including the lesson's topic, goals and learning aids used. The approach to observation was non-participatory, so events were not interfered with but observed from the outside, to use Robson's (1993) description.

The possibility of observing, listening and making notes during the lesson gave me direct insight into what happened in the lesson, what was said by the teacher, how the teacher had guided the thinking process of her pupils and directed the lesson toward the final stage of assigning the homework with the use of Wolne Lektury. My presence there helped me to understand the pupils' position and what they might be looking for while doing the homework and how well (or not) they were prepared to use WL to their advantage.

Following the stage of lesson observation I asked the teacher to assign voluntary homework asking pupils to describe their experiences on using WL for the homework assigned to them during the lesson attended by me. This 'homework about homework' was meant to help generate more direct learner data intended to help me understand if and how WL might have helped the pupils in completing the assignment and understanding the issues discussed during the lesson better. The homework was directed equally at those who had positive experiences with using the OER and those who had critical remarks. Comments on other homeworks or the use of WL in the classroom were also welcome. Students were simply asked to 'describe their experiences with using the WL site' taking into account six points on: if and what might have encouraged them to use/ keep using the site to revise, gain access to texts, etc.; what (resources) might have been most helpful in doing the homework, e.g. exhaustive motifs descriptions, and what problems students might have encountered (e.g. in locating motifs); whether they worked through the assignment in the order dictated by the teacher or not, and whether they looked at more than what had been assigned to them or not, and why. One pupil

responded sending me comments on these points directly via e-mail.

On-going conversations with the MPF team, co-presenting with the chairman of the Foundation and attending a presentation by the WL team at two conferences, and a visit to the MPF office were all used as resources. The resources were in the form of experience, insights gained, reflections and notes made during and after observing (again in a semi-structured way) their work, presentations, and prompting and probing intended to aid the process of answering questions and interpreting the findings of the study.

There were 26 participants involved in the data collection process in this case study: two interviewees recruited through the Website invitation, four individuals linked to the MPF conversed with and observed, and twenty pupils observed during a lesson led by the Warsaw-based teacher, one of whom provided further feedback on using WL.

5.8.1.4. Data analysis methods and sources of evidence

The Miles & Huberman qualitative framework (1994) was used to analyse interviews in the same way as in other case studies, except that the translation stage was added as all interviews and observations conducted and follow-up feedback gathered were in Polish.

The two semi-structured interviews with users recruited via the website were transcribed in Polish. The coding and memoing stage was already done in

English and quotes selected to support statements were translated into English from the Polish transcripts.

The follow-up homework feedback sheet and notes made during observation were used as sources of evidence and analysed using the Miles & Huberman method, serving as a mixture of memos, notes and verbatim scripts.

5.8.2. Findings

5.8.2.1. Main question B: What role does WL provided by the MPF play in supporting lifelong learning among different users?

The main role of WL provided by the MPF in supporting lifelong learning among various users consists in:

- (1) Granting access to full authentic texts available openly and free of charge in different formats for use in various contexts.

First and foremost WL plays a key role in supporting formal learning among secondary school pupils, especially at the transitional stage of the final examinations preparation, as a free and open repository of resources in the form of full versions of original texts and learning-enhancing content (motifs, annotations) available in different formats so that users have a choice depending on their preferences and abilities or disabilities. WL resources can be

used by pupils independently, e.g. at home for revision before exams, and by teachers in the classroom, e.g. to support group work. The Warsaw-based teacher said:

‘[using WL resources] can help especially with presentation, i.e. with the oral exam during Matura [Polish A-level] because pupils have the duty to prepare for this exam independently’ (Warsaw Teacher (WT)).

Continuing on the advantages of using WL the teacher named:

‘First of all learning to work independently and secondly there are texts there that might be difficult to get hold of in paper sometimes because a student lives in a small town, the library is not well equipped or they simply don’t have it at home and need to find a poem or a novel. It is basically a way of getting access and of course downloading a given text or saving or processing or printing it’ (WT).

What is of key interest to students and educators is the possibility of accessing full texts that are on the secondary school syllabus, that are part of the curriculum, and that are annotated in a relevant way. However, there is demand for newer texts than those in the public domain (at least 70 years old) as contemporary readings are on the national curriculum, too. If a pupil is preparing for the final secondary school exam, which is very important at the key transition stage from the secondary school to university, what they need from WL is a full provision of texts and resources that will help them in these

preparations.

- (2) The fact that WL can be used to support learning both in the formal context and independently, e.g. to improve and revise for formal assessment, e.g. Matura (Polish A-levels).

This is linked to WL having been recommended to pupils by their teacher and also to pupils' experiences with and opinions on WL, e.g. according to one student who provided post-observation homework feedback the OER was useful as a comprehensive resource when preparing for lessons or tests:

'All readings and materials on the [WL] site are like a treasury of all the information needed for us to prepare for lessons or during preparations for a test' (Voluntary Student (VS)).

- (3) Facilitating different skills and attitudes development with WL.

WL can support the development of various key skills, especially ICT and learning skills, digital literacy and critical thinking habits in the area of interpreting literary texts and searching for information.

Through using WL attitudes can be fostered and values championed, e.g. honesty and fair play (as opposed to using someone else's work or cheating among pupils).

It is not just *what* you use for learning that matters but *how* you use it, based on the message conveyed through WL. Through what is available on WL (texts and motifs that are merely showing directions to arrive at answers) and through what is *not* available on WL ('ready' answers or essays) the creators and contributors make a statement on what it is that they encourage and champion: honest work, striving for quality, and arriving at one's own answers rather than accepting someone else's thinking and opinions without considering alternative interpretations. In the opinion of the interviewed Warsaw teacher this was a key thing that made WL stand out as the teacher raised the issue of cheating among pupils that is being made worse by the availability of so-called 'ready' works on the web, e.g. essays on popular examination questions on literary works:

[using 'ready-made' materials] is very common nowadays, students use it like they would use a textbook and teachers have to go beyond themselves to think up topics for homework that students won't be able to find in those ready-made assignment sites which is becoming virtually impossible as you can find everything on those sites these days' (WT).

Developing the ability to think critically, to challenge someone else's ideas, to select information on the Web and be able to judge whether something is authentic and credible are important, as the Warsaw teacher concluded. WL is used by the teacher as an example of a 'good' educational site, i.e. a place where authentic texts are annotated by competent contributors; a site that encourages users to interpret things on their own and develop the ability to express

themselves.

- (4) Being available to educators as a tool supporting innovative teaching and enriching the educational experience.

Using WL by teachers can be a gesture, a step towards pupils, a move into 'their territory', i.e. their increasingly digitally-based learning worlds – students appreciate that which is perceived by the teacher as a factor that can increase motivation to learn, potentially contributing to re-shaping attitudes to education.

In the case of the Warsaw teacher interviewed, using WL in the classroom is also an opportunity to support classroom teaching with WL resources annotated by herself:

'I have had a lesson dedicated to revising the works of Mickiewicz. Pupils worked with computers and their task was to use the wolnelektury.pl site to gather suitable resources for that revision, so exactly to use these motifs that I had put in the texts' (WT).

The possibility of using WL in the classroom is a possibility of change, doing something different from everyday classroom work:

'What I like most in it [contributing to WL] is the fact that it is a complete change, distraction from this everyday teaching work; it is related to

working with literature but at the same time it is something completely different than what I do at work on everyday basis...I like doing corrections because it is a sort of intellectual rest, too, you do not have to stretch yourself too much' (WT).

As the Warsaw-based teacher put it, the fact that WL is available online rather than being paper texts is about more than just the form of availability. It is about what it means, promotes and facilitates. What WL is and how it can be used and accessed is all significant according to the teacher who said that 'psychological elements' came into play and the 'timely element' was significant. Despite all the innovations in the world, some slowly introduced into schools and others already established, school-based teaching in Poland is still rather traditional, taking place face-to-face in an organised, formal context. Pupils, as the teacher suggested, often associate school with something traditional, simply boring. According to her using WL to enhance classroom-teaching and facilitate learning between lessons is like moving towards something pupils are familiar with, something they might like more, that can be associated with enjoyable leisure-related activities. A belief that positive associations, e.g. with play time and not feeling the restraint and constraint of the school building, might contribute to students' enjoying learning more, increasing their motivation and, potentially - in the long term - help shape their attitude to formal education, relates to the point that Greeno et al. (1996) made. Based on the behaviourist school of motivation, Greeno et al. (1996) observed the importance of positive associations in getting involved in and negative ones in avoiding certain situations.

In relation to lessons specifically, surprising the pupils with new ideas really adds value according to the teacher who appreciates the possibility of using WL to enrich lessons and avoid monotony in the classroom. WL offered, as the Warsaw teacher put it, “a complete change’ to the everyday teaching work’. Working with MPF resources as a volunteer or using them in the classroom helps teachers as it is something different from their day-to-day tasks. It helps them work on literature but in a different way, providing intellectual challenge or rest, depending on the nature of task, for example the Warsaw teacher advised that working on motifs and annotations can be a stretch but corrections are an opportunity for ‘intellectual rest’. As the teacher is planning to continue work with the Foundation and get involved in an even more intensive way, it appears to be of significant value to her.

(5) The fact that WL can be used instead of paper books by teachers in lessons.

The results of the case study show that it is possible to use WL simply as an alternative to paper books. This is interesting in the context of debates on whether or not pupils of Polish schools should carry books to school every day or not. One important role of the WL OER is its proven potential to serve as a substitute to paper books, both at home and at school, and also on the move, whether in relation to textbooks or literary works.

(6) The fact that WL can serve to ignite and foster interest in literature, inspire and help pursue enjoyment-driven leisure learning.

Introducing WL into classroom and homework learning can help encourage and foster interest in literature among pupils, as seen in the example of the voluntary homework pupil, who, after doing the homework assigned by the teacher, went on to free browse around literary motifs that interested him:

‘After I had done the homework assigned by the teacher I looked through [other] motifs that interested me’ (VS).

The availability of resources through WL and others from the MPF promotes reading of and learning with quality content for pleasure, as a free time activity that can inspire and help nurture appreciation for literary works of one’s native country and international authors.

Apart from the role of WL as an OER, the Modern Poland Foundation as its creator and provider plays a key role in supporting lifelong learning among various users through:

(7) Facilitating volunteer work, development and collaboration.

Through providing resources like WL that are worked on by a network of volunteers the foundation facilitates contact, communication and collaboration between volunteers who are teachers and students. MPF volunteers benefit from that on different levels: they have opportunities to participate in vocational training and to network both online on the editors’ platform and face-to-face during training and social events.

(8) Connecting teachers and facilitating exchange of their ideas through and around the Foundation's resources and platforms:

'Teachers who have different ideas for lesson scenarios using this site can send their lesson scenario ideas' (WT).

(9) Empowering the contributors and supporting their professional development.

By providing opportunities for annotating and organizing literary works the Foundation facilitates work-related learning and professional development for teachers who can use their work on WL directly in their portfolio while applying for a formal promotion to the Diploma teacher title:

'Work with the Foundation is an element of, a part of my so-called portfolio thanks to which I became a diploma teacher - it was one of the activities that led me to obtaining that' (WT).

The Foundation's resources also help teachers learn not only in order to get formal promotion but to simply learn and revise things themselves, e.g. refresh old Polish or Latin, and provide opportunities for undergraduate students to apprentice around WL.

At the same time there is no obligation to contribute at regular times, which is

valued by contributors:

‘Because I do not feel the Foundation puts pressure on me to continue working or to work faster this is absolutely, how should I say, natural, unplanned, and because duties at the school keep piling up, I do not want to force myself to do this voluntary work [i.e. annotating literary texts on WL website and developing literary motifs], therefore I work from time to time only’ (WT).

(10) Connecting and facilitating cooperation between organizations, ideas and individuals.

WL and other MPF resources and networks facilitate cooperation between the Foundation, teachers and schools:

‘I organized a competition at school to celebrate the Year of Slowacki and asked a representative of the Foundation to sit in the panel committee and she brought some souvenirs for all participants from the foundation. The Foundation was the honorary patron...so that is another example of cooperation between our school and the foundation’ (WT)

(11) Foundation’s resources being available online in different formats with different features, making learning more accessible and inclusive.

Because of being available online, texts on WL and other resources can be accessed abroad by those who have problems with obtaining Polish texts or want to check something before buying. The MPF has also released a special edition of Audiobooks for those living abroad called 'Audiobooks of school obligatory readings for the Polish diaspora', with initiatives and competitions for Poles living abroad as part of a reach-out campaign organized by the Polish Senate.

The Foundation's programmes promote inclusive access to learning by providing OER in different formats, e.g. text documents or audiobooks, and different formats for those with disabilities, e.g. hearing impairment or dyslexia. Apart from being available to listen to or download from the website, the recordings of books are available on CDs and distributed among libraries and institutions working with the visually impaired.

The availability of various resources in different formats is valued by users who also expressed an interest in more possibilities for personalisation of use, e.g. through adding items to favourites or annotating items within user accounts (which were absent on WL at the time of commencing the study in the Spring of 2011).

- (12) Foundation's resources being used by individuals and groups with different interests: Polish language, literature and culture, international literature, poetry, philosophy and science.

Depending on the main educational role of the participants involved there were various key interest areas, e.g. the Warsaw teacher is of course a teacher of Polish, the lesson observed was with a group of pupils from a technical secondary school, and the UK-based interviewee was a trainee science teacher.

(13) The Foundation's endeavours to make the readings, which they describe as 'our cultural legacy' available for everyone openly and freely, accessible from everywhere.

(14) Caring for quality.

The resources provided by the MPF are of high quality. The contributors are 'experienced editors and teachers so [the] website content is solid and reliable. To create it, we cooperate with the National Library which provides us with the best available editions of the books as well as the critical studies of the school readings, published in Digital National Library Polonia' (FNP, 2010).

Care for high quality annotations can be observed among the contributors themselves, e. g. the Warsaw teacher who has several years of teaching experience. Although aware of the fact that Polish undergraduates are training in the field, the teacher expressed a wish for more expert involvement:

'[what would improve the site] would be more expert engagement, teachers mainly, as 90% of those involved in the project are students who work as volunteers, students of Polish philology or other subjects

and treat it as a kind of practice, training...but in case of bigger, more difficult work, to be honest with you I think that this is beyond their abilities to annotate a big text with motifs and annotations that would both be properly formulated and useful to the pupil and it is the point of view of the teacher who is closer to the pupil that would be useful' (WT).

What is valued by users, despite 'modest looks/ graphics [of WL] that could be made a bit livelier' (VS), is 'very good organization of the site' - in the words of the volunteer pupil - and the amount of material:

'The information contained on the site is sufficient, there is not too much of it, which makes it convenient to use it...I think that the organization and clarity on the site is fundamental in helping to use it' (VS).

The last quote, by the voluntary pupil, is, I believe, a great evidence of what a user of WL values in a nutshell:

'interesting content of Wolnelektury.pl....interesting articles and annotations...all readings and materials on the [WL] site are like a treasury of all the information needed for us to prepare for lessons or during preparations for a test...each motif is described in an exhaustive way...as far as the texts are concerned the provision on the site is really comprehensive and, importantly, the texts are available free of charge' (VS).

5.8.2.2. Main question A: What motivates and influences learning with Wolne Lektury among different users?

Using the responses to all sub-questions, generated based on the data gathered in this case study, the motivations to learn or facilitate the learning of others with WL among different users and related influencing factors can be divided into:

- motivations linked to supporting formal education (and structured/ goal-driven learning approach), and
- motivations linked to non-formal and leisure learning (and unstructured/ free learning approach).

Within the first category users are motivated and driven to use WL specifically by:

- (1) formal assessment, tests, especially final exams at the sixth-form level; their ambition to perform well or at least pass (pupils) and to prepare others (teachers). The focus of such use is on the result and quality of the outcome, while the learning is organized, structured, goal-driven and performance-related.
- (2) encouragement and introduction of WL into classroom work and/ or homework linked to individuals' preferences and content available on

WL. The use of WL among Polish sixth formers is driven by their objective to pass their final exams (Matura) and their ambition to perform well in them. Some pupils only begin to use WL because their teacher introduced it to them. After that the intensity of use depends on whether and how the teacher uses WL in the classroom and assigns it as homework, and also on whether the pupil simply wants to use the site even if they do not have to. Based on the feedback provided by the voluntary homework student it was the 'interesting content of the [site]' that encouraged him to keep using it.

(3) (goals and qualifications related to) professional development of educators: The Warsaw teacher is a contributor for whom work on WL has had direct impact on the progress of her professional development, helping her in producing a portfolio of work that was needed to be awarded the grade of Diploma teacher. The goal of obtaining that qualification was a key driver for the teacher's contributions to WL.

(4) (the need for) mastery, skill(s) and knowledge: an example of mastery-driven use of WL is that of undergraduate students of Polish who volunteer for MPF and annotate texts available on WL treating it as a form of traineeship needed formally to accomplish their studies, as mentioned by the Warsaw teacher who co-ordinates volunteer contributions on WL. Such use is also or, perhaps, mainly driven by the students' interest in the subject since they chose it as their main university course. The advancement of knowledge (one's own and of

others), testing one's knowledge of literature before oneself and exercising one's text comprehension and interpretation skills drive volunteer contributions.

(5) (contributions rather than learning driven by) altruism, greater good: volunteers who contribute to annotating WL are also motivated by altruism and their wish to contribute to helping pupils at key educational stages or produce good quality materials that could be accessible for those in rural schools where access to books or teaching and learning resources is often difficult (this links to the previously made point on advancing knowledge of others).

(6) learner reaction/ benefit. If students react positively to the introduction of WL, the teacher feels encouraged to use it. As the Warsaw teacher reported in relation to introducing WL in the classroom:

'Every way of surprising the student is good...The students like above all the fact that their Polish teacher turns out to know what the computer is and how to switch it on and use it in the lesson... here every change is good and every act of surprising the student is good, you know, and enriching the lesson in this way' (WT).

Within non-formal and leisure learning (linked to unstructured/ free learning approach) users are motivated and driven to use WL by:

(1) enjoyment, pleasure, curiosity, and (seeking) inspiration: Some users access WL in their leisure time seeking to read their favourite works, find other texts that they (would) enjoy, and possibly check items they are not familiar with before buying, e.g.:

'[What I find beneficial is] above all the immense choice and getting to know a textbook without having to buy it...you can gain a look into a book and find out if you want it [before buying]' (UK-based teacher (UK)).

The main factors ascertained among the participants that influence their use of WL for learning and facilitating the learning of others in both structured and unstructured ways are:

(1) one's educational role, e.g. whether one is a sixth-form pupil, a teacher or an undergraduate student.

(2) having specified goals vs. free browsing/ learning: As explained in detail in sub-question 2, one's goals or their lack at a given time determine(s) if, what and how one uses WL. For example, when pupils have the goal of doing their homework with specific tasks outlined within that homework in a particular order dictated by their teacher, their use of WL will depend on what and how had been planned by the teacher. In contrast to that, pupils can start free browsing around WL once they have completed their homework. As seen on the example of the science trainee teacher:

‘If I need information for something specific then my use is more organised, I search for concrete things on a given topic, whereas for leisure it is more spontaneous’ (UK).

(3) location: Those located in cities have easier access to books and resources than those in rural areas in Poland. Thanks to WL being accessible online, textbooks can be obtained from the MPF website and become available to those in distant regions or abroad where Polish texts are not accessible as easily due to a shortage of Polish libraries and bookshops.

(4) preferences, e.g. preferring reading texts to listening to audiobooks.

Reflecting on students’ preferences the Warsaw teacher concluded:

‘there are students who definitely prefer to listen than read, mainly the ones with dyslexia, and for those students audiobooks are most recommended. Some students are not able to combine the two [listening and reading], they prefer to listen and then read quietly’ (WT).

Reflecting on her own way of using the resources the teacher said:

‘I - for instance - would not just be able to listen to a text, if I can I look, you know, for instance at a poem if I want to understand it...’

(5) Availability, visibility and organisation of resources on the MPF site, including suitable formats to one's abilities and disabilities, e.g. audiobooks recommended to and preferred by students with dyslexia. As the voluntary pupil who sent his comments on the WL homework observed:

'It is the interesting content on the Wolnelektury.pl that encouraged me to continue to use it. Arguments 'pro' [using the site] are: very good organization of the site, interesting articles and annotations, and audiobooks' (VS).

One user can be motivated and influenced by factors from different areas linked to (sometimes overlapping) roles in their lives and education. A great example of that is the Warsaw teacher who facilitated socio-collaborative classroom learning of her 6th form pupils at school. The teacher also used the voluntary work for the Foundation to produce her portfolio thanks to which she got her formal promotion as a teacher, using WL driven by various goals at different times depending on her different roles.

5.8.3. Reflections

The case study of WL as an OER of MPF is interesting in the context of this thesis as it highlights the educator's role in facilitating learning with OER in a specific formal educational setting of the secondary school and at an important

transition period of pupils' final pre-university exams. The Polish teacher whose insights heavily influenced the answers to the research questions used WL in a way that aligns with the intentions of the MPF, helping pupils develop skills like critical information searching and creative thinking, and attitudes of working honestly and valuing quality. This resembles one of the ways in which OpenSpires is used: UK secondary school teachers use the OER to prepare pupils for their final school exams and to help them gain confidence and belief in their own abilities before entering university environment.

Compared with the OpenLearn study, where the use of OER by older independent learners was in the foreground, what emerged in this one was how OER can be used to help support both formal classroom learning and how young learners who are still pupils can be guided by their teachers to learn to use OER to support their learning.

The case study illustrates how an OER – if successfully introduced by the teacher – can help younger students in formal education develop their knowledge, skills, values and interests, e.g. foster passion for literature. The results show that it is thanks to what is available on WL and how it can be used and accessed that makes WL important, and how the teacher introduces it. In relation to the teacher interviewed, the pupils observed during a Polish lesson led by her, and the voluntary homework feedback provided afterwards, it was the fact that the use of WL was assigned as homework that helped in introducing pupils to the WL OER, how the homework was designed (guiding the students in even the order of looking at specific motifs on the site), and how

the lesson observed prepared the pupils to use the WL to help them complete the homework, that all mattered.

What this case study has exposed then is how the OER and the teacher, or perhaps the teacher with the help of OER, can 'scaffold' (using Vygotsky's term (1978)) students' learning towards gaining knowledge and skills that students can continue to develop throughout their lives.

Various examples of use of WL illustrate the already existing and potential connections between secondary school pupils, teachers, university students and organisations that use and provide OER that can result in fruitful cooperation and learning for all.

This study is also interesting because it is set in the context of contemporary Poland which is very different from the context in which organisations behind the English-speaking OER are set, e.g. the UK for OpenLearn (The OU) and OpenSpires (Oxford University) or the U.S. for OpenStudy (examined in relation to MIT OCW provided also by a US-based institution).

An organisation like the Modern Poland Foundation has a key mission to fulfil in Poland because of promoting not only openness and freeness of educational resources but championing digital literacy, highlighting the role of technology in education and campaigning for better access to ICT in Polish schools, especially for children in rural areas.

It must be stressed that my own background and attending school in Poland were very useful in understanding what the users of WL and other MPF OER resources experience and hope for when using the resources.

As far as the methods used are concerned, it was interesting to see how much insight could be gained from direct observation of a classroom-based lesson. That observation element helped in understanding the objectives of those using the WL OER – both educators and learners in the formal educational context of the secondary school.

The low response rate to the first online invitation that resulted in recruiting two interviewees was the cause of further considerations that led me to implement alternative participant recruitment and data collection methods. Triangulating the methods of data collection and sources of evidence, i.e. the fact that data was gathered through interviews and observation, remotely and face-to-face, and from users in different roles in relation to the WL as an OER (learners, teachers, volunteer contributors and creators/ producers) was useful.

If further work were to be conducted on WL, more interviews would be suggested with teachers and pupils from different schools perhaps from different places in Poland, both cities and rural areas. This is because the problems of those in the latter might be very different from those of learners and teachers where access to resources is generally far better. This could expose different issues that did not arise in this study as it was limited to the environment of one secondary school in Warsaw as far as learner observation is

concerned.

The purpose of this case study was to explore and find out how the WL OER of the MPF was used to learn, and also to support the learning of others, to understand what motivated – drove and influenced – these processes, and what role the WL OER provided by the MPF played in supporting lifelong learning among different users. The objective was achieved insofar as an understanding of specific users or, better said, users in specific educational roles and settings was gained and rendered as descriptions supported by examples and participants' quotes.

The experiences of meeting the MPF representatives and following the Foundation's activities were useful and provided insights on the Foundation's hopes, mission and challenges.

A draft of the final write up of this case study was sent to the chairman of the Foundation and the Warsaw-based teacher for feedback and verification purposes and later on discussed with both of them during the visits to the Foundation and the observation follow-up meeting. No corrections were suggested however it was interesting to receive two comments from such different perspectives – one of the chairman who thought the report did not focus sufficiently on the Foundation itself but more on the users of the resources (which was actually in line with the focus of the case study) and the teacher who continued to centre her thoughts on what was useful for her pupils, restating what had previously been said.

6. Research questions: key findings, summaries, discussions and conclusions

6.1. Sub-questions: responses to all case studies in a nutshell

Although the aim was for each case study to be intrinsic rather than instrumental, as an experiment or exercise, responses to sub-questions from across all case studies were summarized. This was done to see what emerged in a concise form, stressing that one ought not to generalize from these onto other OER that were not included in this work.

Not all findings are applicable to all cases included, either - this is also why each case study was presented separately. However, before a detailed discussion of the findings to the two main research questions, in which it is specified which claims apply to which OER, it was decided that a compact summary of what was established through the answering of all cases' sub-questions would be presented. The intention was to present the summary in a clear way, as concisely as possible, using the most suitable words or phrases, and using examples where deemed necessary.

Sub-question 1: What are the reasons for and goals (purposes) of learning and interacting on OER?

The two main types of goals and purposes of learning and interacting on OER are: to gain/ get expertise or support and to share/ give expertise or support.

Interactions are manifested through writing questions, answers, observations, reflections, comments or recommendations.

Reasons for learning and interacting with OER are related either to supporting the formal learning of oneself or others or to supporting one's non-formal/ informal learning. Individuals use OER because they want to, because they have or need to, or simply because they can.

Sub-question 2: How does the online and offline context influence learning and interacting on OER?

The main influences on learning and interactions, online and offline, are: the educational role of those using a given OER to learn or facilitate the learning of others, related goals and people, previous education and experience(s), and the time and timing (of using a given OER), e.g. approaching end-of-year exams. Furthermore it is the nature and complexity of task, as perceived by the user, that influences the use of OER, e.g. whether it is considered straightforward enough not to use any learning tools.

Aspects related to access and convenience influence learning and interactions. These are mainly: one's location, the content, tools and formats available on a given OER, and devices at one's disposal. For example, some OER are (more) suitable for mobile use, e.g. OpenSpires podcasts, and some OER provide tools that facilitate interaction with other users, e.g. OpenStudy groups.

Important influences are also individual preferences, likes and attitudes as well as one's trust in the OER and the providing organization's profile, credibility and quality of materials. For example, the courses produced within METU and provided on METU OCW are valued by academics from other Turkish HE institutions because of METU's high profile on the Turkish HE and research scene.

Sub-question 3: What approaches to learning can be observed among different users of OER?

Approaches to learning with OER identified in the study are (starting with the classification that emerged naturally): 1. structured, organized, goal-driven; 2. unstructured, free; 3. mixed, overlapping.

The first approach can be observed in individuals organizing their learning around the MIT OCW course pursued and communicating with members of a study group linked to that course on OpenStudy because of the learning tasks and goals within the MIT OCW course. Learning within the unstructured, free approach is pursued out of interest without specific goals in mind, driven by enjoyment, without a set routine of learning, e.g. as established among some on OpenLearn. An example of a mixed/overlapping approach is that of a Polish 6th former who, after a finished homework to support his formal learning, does not leave the WL site but stays to read on about literary texts of interest.

Based on Houle's (in Knowles, 1973) classification, the approaches can be divided into: goal-driven, learning-driven and/ or activity-driven.

Using the classification of types of learners developed in the OpenLearn Research Report (McAndrew et al., 2009), learning can be independent (voluntary) or socio-collaborative (social). Within the socio-collaborative approach, as emerged from the data in the OpenLearn case

study, learning can be described as 'deeper' or approached 'on the surface' (more cognitively demanding vs. 'lighter').

Classified in terms of time-direction learning approaches can be linked to the past, the present or the future. Linked to the past, learning is pursued because of past experiences, e.g. by Oxford alumni reconnecting to their old departments on OpenSpires. Linked to the present, learning is pursued to support current learning activities, for example formal studies by 6th-formers with WL or current METU students with METU OCW. Linked to the future, learning is pursued strategically with plans and goals in mind, e.g. on OpenSpires before applying to Oxford.

Sub-question 4: What do users value most in learning with OER?

The following were established as most valued by OER users: freedom of use granted by open and free-of-charge access to OER, choice, variety and abundance of content and tools that support learning, e.g. annotations of literary texts on WL. The flexibility that all of these can give the user, which is related to one's educational and domestic situation, matters.

Furthermore, users appreciate high quality of resources, authenticity of the material provided, e.g. Oxford lectures that are unedited for the OER purposes, and individual (good) communication style of the lecturer whose lectures are available. Resources and courses based on or linked to academic research, such as those on METU OCW, are also valued. This is related to having trust in the institution providing OER and its reputation and credibility.

In relation to online activity, clarity of use of features and visible activity of other users of a given OER, relevant to one's learning approach, are also valued.

Sub-question 5: What are the criticisms and problems that users encounter on OER?

Problems and criticisms established in using OER consist in or relate to the lack of or insufficient assessment opportunities, audio-visual content, relevant resources and responses or solutions to learning tasks. For example, users have observed absence of resources from a particular subject area or resources of interest to them, such as contemporary literary texts on WL. In the event of solutions to learning tasks missing, users had asked for them, had they been given a possibility, e.g. of contacting the Oxford's OpenSpires OUCS producing team or the contributing lecturers directly.

Sometimes users were unaware of the full spectrum of content and tools available. Users also expressed discontent with their inability to find content and tools looked for or to locate those previously used, indicating problems with navigating the OER site.

Further criticised were: insufficient (clarity of) organization of learning content, the 'looks' of the OER/ OCW site, e.g. colours used, and lack of visible activity within study groups, discussion forums, learning clubs and journals. Too lengthy units, insufficient time to learn with some tools or units, and forgotten passwords and user names were also named.

Sub-question 6: What are the needs and interests of various users of OER?

Users need and are interested in a variety of subjects, topics, levels and formats of learning resources. Various formats suit different abilities, disabilities and preferences. This is linked to flexibility to learn at one's leisure, choices to organise and direct one's learning, and to be in charge of its content and intensity, without the constraints of enrolment, assessment and deadlines.

OER users need possibilities that can support or enhance their learning, mainly possibilities of communication, skills development and informal assessment, if needed. Above all, there is interest in possibilities of some form(s) of communication with others, especially discussion forums, and/ or possibilities of asking questions, either to other users or contributing lecturers.

Content that supports learning is of interest, i.e. not the mere 'knowledge' but activities, tasks and resources helping to understand and organise learning. These are, for example, lists of recommended supporting resources, reading lists, links, audio-visual material and generally visible and clearly labelled unit titles, lists of topics and subjects.

6.2. Main question A across case studies – key findings: on what motivates and influences learning and interactions with OER among different users

The findings across case studies show various motivations for learning and different factors that can encourage or impede interactions within OER. What triggers and sustains learning with OER depends on a combination of factors from two areas. Firstly, what and why the OER is in terms of content and format linked to the profile and mission of the providing organization and what tools are available within it. Secondly, individual user motivations and the context in which the individual functions, especially their educational role or situation and whether that role is linked to formal education.

The findings in relation to motivations for and influences on using OER and learning with OER are discussed first. Those relating specifically to interacting within OER follow. Statements presenting the key findings are written in bold, numbered and signposted to distinguish them from other statements and conclusions in the thesis, e.g. the first key finding in response to main question A is labelled/ abbreviated as KFA1, the second as KFA2, etc. The statements are supported by discussions and interpretations leading to a concluding section. The key findings established in response to main question A are:

KFA1) Learning with OER is motivated by - interest in, enjoyment of,

gaining knowledge and skills within an area towards - 'self-actualization' (Maslow, 1970), 'growing and becoming' (Lindeman, 1926), 'personal growth and achieving wholeness' (Schunk et al., 2008), 'the actualizing tendency' (Schunk et al., 2008), and 'personal growth, autonomy, and freedom from control by external forces' (Schunk et al., 2008:35 based on Rogers, 1963).

Strong interest in a particular subject or topic and simply interest in and enjoyment of learning were ascertained as key motivators among the users of all OER examined. This confirms the main claims of one of the classic theorists of adult education, Lindeman (1926). Lindeman viewed knowledge as one of the main motivators among adults who choose to learn, beside 'power, [knowledge], freedom, enjoyment, creativity – these and all other immediate ends for which we strive... [All these ultimately serve to achieve] the one ultimate goal which is to grow, to become' (Lindeman, 1926:202). The results confirm what Gross stated about motivating lifelong learning: 'acquiring new skills and powers...[to understand oneself and the world...for self-directed growth]' (Gross, 1977:16).

In relation to the means of pursuing that growth it is the content, i.e. the educational resources that can be found within an OER, that is one of the three main factors determining whether and how an individual chooses to learn with it. The other two include the motivations and influences from within the individual and their environment and the mission of the institution providing the OER. 'A large choice of content' (McAndrew et al., 2009:39) was also

established as the most important feature provided by OpenLearn based on the OpenLearn Research Report 2006-2008 types of users section.

OER users are motivated and influenced by the possibility of developing certain skills consciously. For example, one such set of skills is collaborative problem solving. This is related to the importance of skills and competencies for life roles mentioned by Knowles (1973:167), e.g. sharing and giving feedback needed for the role of the friend or participating in the life of one's community needed for the role of the citizen.

The design of an OER, e.g. WL as a repository of obligatory school readings with detailed annotations, encourages certain attitudes, like honesty and trying to arrive at one's own interpretations of literature. The possibility of promoting such attitudes emerged as a motivating factor in using the OER for teaching.

That ultimate goal of self-fulfilment and realization of one's capacities to the full that Maslow (1970) and Knowles (1973) discussed was observed across motivations for learning with all OER examined. In this sense, what emerged as motivating learning with OER, was 'achieving wholeness' (Schunk et al., (2008:35) based on Rogers (1963)). If understood in line with Schunk et al.'s claims, such learning would be motivated from within. It could thus be described as 'innate' even if influenced externally, further confirming Maslow's claims of humans being driven merely by the 'desires to know and to understand' (1954:93). Schunk et al. (2008) described learning in adult life as 'oriented toward personal growth, autonomy, and freedom from control by

external forces' (Schunk et al., (2008:35) based on Rogers (1963)). In this context the claims of Jarvis (2006) on learning lifelong as involving the whole person, not only with their skills or goals but attitudes and hopes, are relevant. The findings indicate that learning with OER can be both a means to an end or an end in itself. Enjoyment of learning in general or of a particular subject was observed among those with clearly set goals and those learning freely relating to Greeno et al.'s 'intrinsic interest in a domain of cognitive activity' (1996:25), or engagement, as motivating not only the aforementioned interactions but learning itself.

KFA2) Motivation is a dynamic, 'multidimensional and multidirectional' phenomenon while learning of individuals is driven by external and internal factors that change subject to 'forces' acting upon individuals within their 'life spaces' (based on Lewin (in Knowles, 1973)): intrinsic and extrinsic factors, e.g. immediacy of application, relevance or belief in significance and context.

The results show that a combination of factors determines if, what and how OER are used. This includes the so-called 'forces from within' and external influences, mirroring the field theory of Lewin (in Knowles, 1973). It is upon that theory that Knowles based his claims on individual adults being motivated and influenced in learning by 'the total pattern or field of forces, stimuli, or events...[within]...'life space[s] in which many forces are operating' (Knowles, 1973:23). The findings confirm Knowles' claims on motivations, in this case for

learning with OER, resulting from 'the interplay of these forces' (Knowles, 1973:23), including internal needs and goals and external influences where other people play a key role.

One of the most important influences on learning with OER turned out to be one's main educational role as it was in relation to the goals and reasons linked to that role that individuals used OER for learning or to facilitate the learning of others. This links back to what Knowles referred to as 'immediacy of application' (1973:58) of learning to dealing with issues and problems in one's daily life, implying a problem-centred orientation to learning. Knowles claimed that the possibility of learning linked to everyday problems increased learners' engagement and motivation. The findings confirm this claim, especially that users motivated by formal assessment have different goals that are more specifically linked to formal learning, e.g. homework, exams, or getting to university. That formal assessment, qualifications, performance and ambition are the main drivers for learning among those enrolled in formal learning when they are using OER even if there is no formal assessment within that OER. Other factors can be teacher encouragement, professional development or contribution to a greater good and incorporation in one's university system, e.g. METU. A theme linked to immediacy and relevance of application in motivating learning that recurred across all case studies was learning with OER in relation to an experienced life change or, especially in the OpenLearn case study, to catch up on learning even if it was not necessary to achieve any professional goals any more.

Schunk et al. differentiated between factors '[instigating and sustaining]' (2008:5) learning. Results show that learning with OER can be 'instigated' by either intrinsic or external factors that can contribute to sustaining or impeding the process. What emerged as important was whether the learner believed in the meaning of learning with OER, or learning in general. Linking to the point made about one's belief in the value of socio-collaborative interactions as enhancing learning and encouraging interactions, one's belief in the value of learning in itself was observed among the participants of the studies as a key factor in their starting to learn and continuing learning with an OER.

As part of the context, resources available influence the what, if and how of learning, e.g. what is available on a given OER in terms of content and tools, access to other learning aids and technology, time available for learning, location of accessing OER, and other people present in the learner's environment, both online and offline. Users' skills and literacy, e.g. digital, can also count as resources. What type of learner one is, i.e. formal or non-formal, is of importance. These factors could be described as elements of one's learning world or 'landscape(s) of blended learning' (Allan (2007:5) based on Sharpe et al. (2006:18-23)). All these factors shape the intensity and mode of the learning process. However, at the core of learning with OER remains one's interest in a subject area, enjoyment of learning or that subject, and appreciation of learning as of value in itself, further showing learning with OER as 'multimotivated' (Maslow, 1954:102).

KFA3) Those using OER to support structured learning are mostly motivated to persevere in learning to achieve the goals linked to their formal learning whereas those learning with OER freely value freedom of choice and flexibility.

As far as assessing whether the examined OER users' motivation was high or low, if we based our evaluations on the understanding of Schunk et al. (2008) that structure, organization and persistence is evidence of high motivation, it could be said that the motivation of those who learn with OER regularly in structured ways is higher than that of those using OER for leisure, free learning. It is arguable, though, because those learning with OER in more structured ways turned out to be predominantly using the OER in relation to their formal learning. Some of their goals were thus linked to what they have to accomplish, e.g. do their homework or prepare for exams, and not what is pursued without a connection to their duties from within their formal learning world.

Possible reasons for greater organization or persistence in facing challenges evident among these users could be the fact that their work is evaluated on a regular basis and so, everything meant to help them make progress within their formal learning is 'geared toward attaining their goals.' (Schunk et al. 2008:5).

That point on the context of formal learning as encouraging structure and persistence takes us back to the question posed at the beginning of the thesis on the extent to which motivation depends on the learners themselves more than

on the context of learning – or whether these are always interlinked.

A point made at the forming of the questions stage was that users who learn with OER and OCW might be motivated intrinsically, through belonging to groups formed within OER and OCW, with various online and offline factors influencing their participation but no formal assessment on the OER and OCW which could motivate their use. The findings of the OpenSpires, METU OCW and WL case studies show that a proportion of users learning with OER turned out to be motivated and influenced by their goals, reasons and tasks from within their formal educational roles. Therefore the assessment aspect *is* there strongly influencing one's use of an OER even if that assessment is not within the OER. There are, however, also users whose intrinsic interest in a subject or enjoyment of interactions are the key motivators for their OER use, e.g. on OpenLearn. The findings of the OpenStudy case study show that users can be motivated by intrinsic interest in a subject linked to goals related to formal education.

Schunk et al.'s (2008) claims on the lack of organization or not wanting to evaluate one's learning would be evidence of low level of motivation were not confirmed in the thesis. It was observed that some users prefer unstructured, unorganized, free learning at some stages for various reasons, e.g. they just wish to browse OpenLearn to get a feel for what is going on there before enrolling in an OU course. This is rather evidence of their strategic choice than a lack or low level of motivation.

If pursued in relation to formal learning, learning with OER emerged as influenced, enhanced, or 'scaffolded', to use Vygotsky's (1978) Zone of Proximal Development (ZPD) terminology, by the goals, tasks and constraints, e.g. duties and deadlines, from within one's formal learning context. If users have to use OER to achieve specific formal-learning-related goals, their attainment of these goals within the formal learning context also influences their motivation to keep using the OER or to use it again even if not needed to complete any formal learning tasks. This confirms the postulates on reciprocity of learning and performance made by Schunk et al.:

'when students attain learning goals, goal attainment conveys to them that they possess the requisite capabilities for learning. These beliefs motivate them to set new challenging goals. Students who are motivated to learn often find that once they do they are intrinsically motivated to continue their learning' (Schunk et al., 2008:5).

The flexibility of use that OER grant was established as key in encouraging the use of OER for learning. Results show that users value the freedom to make their own choices on how to organize their learning with OER, valuing space to manoeuvre, even if it is in connection with their formal education. If pursued outside of formal educational context, that liberty to organize and direct one's learning is even greater and appreciated more, e.g. by those who can only learn from home, allowing them to be 'selective' in learning and...realize their 'life projects' (Illeris, 2006).

KFA4) Other people are a strong influence and can be the reason for one's use of an OER – (possibilities of) communication, interactions, community, identity and peer support motivate learning with OER.

In the two case studies of OpenLearn and OpenStudy, where communication with other users was possible, other members of study groups and learning spaces can serve as more knowledgeable peers and guides who help in obtaining answers to questions or solving problems. Vygotsky (1978) referred to such help as scaffolding implying that with guidance and support from someone with more knowledge or skills individuals could achieve more, make better progress in learning or, to use Vygotsky's term, development (as the theory was developed based on work conducted among children). The other users of OER serve as dynamic elements of one's context that is crucial in learning as it is in negotiation with its elements that individuals construct meaning. The OER function as learners' landscapes providing contexts and tools within which dialogue with others, e.g. on the discussion forum, or communication to self-reflect, e.g. within one's learning journal, enhance the learning process.

Participants of socio-collaborative interactions on OpenLearn act more like 'networked individuals' as understood by Ala-Mutka (2010). Such individuals are motivated to connect with others when they need or want to, depending on their goals at different times. They connect more loosely, without developing strong identities as members of groups, and so these groups do not become coherent communities. Interestingly, the participants of the OpenLearn study

identified themselves as OU learners even if they were not learning formally with the OU at the time of interviewing. Trusting the OU as an organization, valuing it for the credibility and quality of teaching and ODL materials provided openly and freely via OpenLearn, helping individuals realize their plans which might not have been possible otherwise, were key in developing these identities. On OpenStudy, conversely, participants did not emerge as perceiving themselves as OpenStudy members, using the groups merely as tools helping them progress within their structured MIT OCW learning. OpenStudy participants did, however, value the link to specific study groups because of what it facilitated: communication and solving problems with others when needed and also helping others when they needed help, a key motivation for such learning being ‘...the mutual accomplishment of tasks’ (Simons and Bolhuis, 2006:13-14), in line with the constructivist perspective. It is suitable to interpret the findings using Simons and Bolhuis’ (2006) considerations as the authors adapted Lave and Wenger’s (1991) communities of practice model to talk about learning situated in communities in which the focus was on voluntary learning and the objective of those participating in the learning was to help one another through discussing issues and problems of interest to them. Lave and Wenger (1991) claimed that individuals could move from the initial peripheries to more central or intensive participation as their identities as members of a community gradually strengthened. Although identities did not seem to develop among OpenStudy participants, it was observed both on OpenStudy and on OpenLearn that users took note of others - members of the same groups or posting on the same forums – coming to communicate with some regularly. Neither on OpenLearn nor OpenStudy did users emerge as forming

communities as understood by Lave and Wenger (1991), where users form groups of coherent structures, return to the community and learn from role models because no role models emerged in either study. Users do, however, return to their groups.

The study groups and communication spaces on OpenStudy and OpenLearn could be described, in the context of Pea's distributed intelligence (DI) theory, as 'ubiquitous mediating structures' (1993:48). Within these structures communication is pursued to facilitate problem-solving, allowing individuals to achieve their objectives shared with other members of the group. Other people with their knowledge and resources are used as tools distributed within the group to progress in learning. Learners use these spaces as resources, interacting with other users and technology to reach their goals through 'guided participation' (Pea, 1993:60). From the situative perspective motivation is understood as engagement, participation and being involved in social activities (Greeno et al., 1996). Participation thus emerges as a key learning tool, something that can be the motivation for and also the focus or the objective of learning.

Learning within OER with socio-collaborative tools emerges as a process constructed not only cognitively but socially (Piaget, 1961; Papert, 1993), in interaction with the surrounding world, especially people helping one another mainly through dialogue, which results in 'reciprocal teaching and cognitive apprenticeship' (Pea, 1993:61).

KFA5) Interactions are motivated by ‘internal’ beliefs and attitudes and ‘external’ contextual factors, e.g. time of year or online availability, visibility and ease of using tools.

Belief in the potential of social interactions to enhance learning emerged as important in motivating participation on OpenLearn and OpenStudy. Among participants of both studies were users who believed that discussing problems with other learners could help them in their own learning and that they could help others, which encouraged participation. One interviewed OpenLearn user who did not believe sharing problems during learning helped did not interact, their attitude stopping them. The notion of interactions requiring a belief in their value beside some capacity for self-reflection mirrors the observations based on the theories of Rogers made by Schunk et al. on learning requiring ‘self-criticism and self-evaluation by learners and the belief that learning is important’ (2008:37).

Strong interest in one’s subject or topic related to the course pursued emerged as motivating participation on OpenStudy. Within OpenLearn the key motivations for interactions were enjoyment of learning through interactions alongside curiosity about the subject, topic or problem, and also the activities and interests of others.

Enthusiasm and engagement relating to ‘intrinsic interest in a domain of cognitive activity’ (Greeno et al., 1996:25) motivate interactions among users of OpenStudy and OpenLearn, with the direct link of OpenStudy groups to MIT

OCW courses further valued by those interested in communicating around specific course-related issues.

Individual preferences and related habits or routines of learning developed emerged as influencing if one interacted with others and with tools on an OER. Such learning could be described, using Pea's (1996) taxonomy of desires terminology, as arising from one's habitual desires.

Trust played a significant role in whether one interacted within an OER. This confirmed the claims of Preece & Shneiderman (2009) on what encouraged technology-mediated collaboration within the area of sociability: 'an atmosphere of empathy and trust that promotes belonging to the community and willingness to work within groups to produce something larger' (2009:23). Lack of trust and anxiety prevented some interviewees from participating, e.g. not being sure how to understand the privacy policy of the OER, so sociability-related factors: 'safety and privacy' (Preece and Shneiderman, 2009:18). Encountering a problem while learning could either encourage interactions or not, depending on how competent or confident a user felt, which was observed both on OpenLearn and OpenStudy.

Interactions motivated by a sense of duty, recognition, reciprocity and altruism, and arising from courtesy and politeness, were ascertained on OpenStudy. All of these are listed across the Reader-to-Leader Framework of Preece and Shneiderman (2009) who describe the factors encouraging participation across the roles of the reader, contributor, collaborator and leader, e.g. 'recognition of a

person's specific expertise...[and]...for the highest quality and quantity of contributions' (2009:21) as (a) sociability factor(s) influencing contributing. The OpenStudy badges and medals turned out to fulfil such function for some users who perceived them as a pleasant acknowledgement.

Visible presence of others online, e.g. on a chat on OpenStudy, encouraged contributions, giving some the impression of classroom learning. This is reminiscent of what Ala-Mutka (2010) described as the illusion of close links among those connected online.

The time of the school or academic year and also the time in one's life, as in whether a user is learning in relation to changes in their life, influences learning around interactions. This was observed in particular among the users of OpenLearn and is reminiscent of what Knowles spoke about as critical periods in life in which 'some of the most meaningful learning may occur' (Knowles, 1973:154) which can motivate individuals to seek interactions while learning. OpenLearn turned out to fulfil the function of space in which learners going through transitions or wanting to learn in relation to experienced changes could connect to others and get support. The participants involved in the OpenStudy case study used the site in connection to their future plans, in a way preparing for changes to come.

Lastly, practical factors, such as simply whether a tool that facilitates interactions is available, visible or easy to use, influence whether or not a user of OpenLearn or OpenStudy can and will use it. These are factors from within

the area of usability which Preece and Shneiderman (2009) include in their framework, e.g. 'visibility of ratings and comments by community members...[or]...users' contributions' as influencing contributions or 'content presented in...well-organized layouts...[or]... 'universal usability to support novice/ expert, small/ large display, slow/ fast network, multilingual, and users with disabilities' (2009:18).

KFA6) Two main types of motivations to interact were identified among examined OER's participants: expertise-related (mainly on OpenStudy) and support-related motivations (mainly on OpenLearn).

It was interesting to observe the differences between motivations for socio-collaborative learning on OpenLearn and OpenStudy. Although it was established that the most valued and used tool on both was the discussion forum, the reasons for and goals of interacting with other users through these forums were different.

On OpenStudy the purposes of interacting were closely related to seeking or sharing expertise within the subject area of interest, with users communicating around specific issues, questions and problems within their pursued MIT OCW courses. Their motivations for interactions on OpenStudy were linked to their motivations to pursue structured learning with MIT OCW independently. The support-related element of for instance thanking, encouraging others or

introducing oneself was observed but in a minimal capacity, appearing to serve as introductions to more specific, more cognitively demanding issues. The sociability aspect in interactions on OpenStudy was observed as facilitating expertise exchange and helping learners with organizing their learning. Interactions motivated socio-emotionally played a much less important role among the participants of the OpenStudy case study than among those involved in the OpenLearn one. One reason for this could be the fact that in the OpenStudy only users belonging to MIT OCW groups were interviewed. These users' learning approaches emerged as quite strategic, their learning being organized and structured, in line with the rhythm and structure dictated by the OCW even though they learnt with the courses non-formally. Among those on OpenLearn, on the other hand, were learners whose learning was less structured, not organized, pursued freely. These learners would interact for different reasons and with different goals in mind. Their motivations were not always expertise-related but linked to seeking or sharing support, wishing to connect to other learners, belong to a group, escape isolation, share their hopes, learning plans, reasons for using OpenLearn, tell others about themselves, cope with changes or prepare for transitions in their lives.

On OpenStudy these were not observed, it was mainly for purposes of gaining knowledge and developing skills that learners used the site.

The classification of motivational issues into related either to seeking or sharing expertise or support, or mixed, emerged based on the findings to the pilot study conducted linked to dividing types of interactions into cognitive and socio-

emotional (more affectively charged). That classification was developed in the pilot based on the claims of Kreijns et al. (2003) in line with which learning in communities or groups (computer supported learning environments with asynchronous communication tools, in the case of their paper) is influenced by cognitive and affective factors, for instance forming affiliations and impressions. Kreijns et al. (2003) stressed that communication outside of tasks-related contexts was of significance to learners but that did not surface in any of the OpenStudy interviews. The little influence of the affective on the interactions of participants of the OpenStudy study could be due to the fact that the study groups are already formed and linked to the MIT OCW. Therefore the learners can pursue deeper cognitive level (Kreijns et al., 2003) communication without occupying themselves with the affiliation formation aspect. In the OpenLearn case study, on the other hand, that lighter level, non-task related communication emerged as playing a strong learning-support role for some users using communication spaces of various groups.

Although motivations to interact on OpenStudy were predominantly expertise-related there were factors from within the area of sociability that influenced users and these interactions, based on the RTL framework of Preece and Shneiderman (2009). If compared, the tables of online and offline factors encouraging and impeding interactions with other users and tools on OpenLearn and OpenStudy show that other users, more specifically evidence – visible and abundant – of activity of others encourages interactions both on OpenLearn and OpenStudy. Conversely, lack of activity or lack of response to one's posts acts as discouragement. The possibility of connecting with others

pursuing the same course emerged as encouraging interactions both on OpenLearn and OpenStudy.

Users responding in polite and helpful ways as encouraging interactions confirmed the claims of Preece and Shneiderman (2009) on sociability factors and that of Makryiannis and De Liddo (2010) relating to the four modes of contribution online. Makryiannis and De Liddo (2010) claimed that if the community reciprocates and responds positively to one's online activities the individual can progress within the modes of contribution online. The progress would be from browsing, gathering and sharing to mode 2, which is giving and receiving feedback and expertise, to mode 3 which is to 'collaborate and jointly decide about actions' (2010:4), and to mode 4 which is sharing control 'over the content and the community' (2010:4).

However, based on the findings of the OpenStudy study negative feedback can prompt one to interact, too, as for some it is the response, 'any reaction' as one interviewee put it, that matters rather than just a positive one.

KFA7) Socio-collaborative learning can happen around OER that do not provide socio-collaborative tools, e.g. with WL.

The study of WL showed that OER that do not provide tools for socio-collaborative learning can also be used to facilitate such learning, as seen on the example of the Warsaw teacher interviewed and classroom observation conducted. That experience serves as evidence of the teacher's role as a

facilitator of learning with OER in classroom context. This is reminiscent of what Schunk et al. (2008) said about teachers facilitating and establishing 'a classroom climate oriented toward significant learning and...[helping]...students clarify their purposes in learning...[also arranging] resources for learning to occur. Facilitators are resources and make themselves available to students by sharing their feelings and thoughts' (Schunk et al., 2008:37). By encouraging the students to use WL, introducing the WL as a resource, and showing students how it can be used to do homework independently or discuss issues and revise during lessons the teacher fulfils a key role in motivating and influencing if and how students use the WL to support their learning.

Based on the accounts collected for the purpose of the OpenSpires study the initiative is also used by educators to support the learning of their students and to encourage and inspire them to fulfil their educational plans and life goals. The METU OCW interviews also showed evidence of educators' using the OCW resources and incorporating them in the formal learning in their campus-based courses.

Conclusions on key findings KFA1 - KFA7

Motivation in this thesis is understood as a complex dynamic phenomenon, a system in the centre of which were the learner with their goals, needs, interests and desires but learning in interaction with and influenced by the surrounding world.

Whether the results show that motivation for learning with OER is socially influenced or socially constructed, to use Järvelä et al.'s (2010) classification, is arguable, as shown in the various examples in the discussion. It simply depends on the users and their goals and needs at a given time and in relation to specific OER. Even one user can learn with the same OER differently when occupying different roles (e.g. educator and learner). Depending on what they are trying to achieve at a given time, the user can be motivated by different needs and setting themselves different goals. Multiple and multi-directional factors from the online and offline contexts influence these ways of learning with OER. Different motivations were observed among users of the same OER and the same motivations were observed among users of different OER.

Motivations to learn with OER sometimes overlap with motivations to interact within these OER (that provide socio-collaborative tools). Core intrinsic motivators are: one's appreciation of learning as a meaningful and pleasant pursuit and one's belief in the power of communication and peer interactions to enhance learning. Learning with OER is mostly pursued voluntarily even if to support formal learning.

In relation to the variety of multi-level motivations among various OER users and different factors that influence learning with OER, the fact that OER can accommodate these various users and their learning needs openly and flexibly is significant and discussed in the next section.

6.3. Main question B across case studies – key findings: on the role OER play in supporting lifelong learning among different users

In the ten years since agreeing by UNESCO in 2002 on the intended role of OER in helping to widen access to quality higher education in developing countries OER have become much more than resources meant to help more people in the developing world learn at university level. The evidence gathered in this thesis, based predominantly on the accounts of learners, educators and contributors from the so-called developed world, clearly suggests that the OER examined firstly facilitate inclusion in learning with quality resources provided by higher education institutions even if it is not pursued formally. This is because of OER being available openly, free-of-charge, with content catering for different needs, preferences and abilities and disabilities, and in various formats suitable for ODL, mobile learning and face-to-face contexts.

The findings of all five case studies indicate that the meaning of OER has expanded beyond the first official definition as non-commercial educational resources ‘enabled by information and communication technologies for consultation, use and adaptation by a community of users’ (UNESCO, 2002).

OER function as environments and tools that can be used to facilitate and mediate, and support and enrich learning among users at various stages of lives, both in formal education and those learning non- and informally. Therefore the

essence of the concept of OER lies not just in *what* they are but in *the ways* in which they can be used, by whom and to what purposes *because of* what they are and how they are provided. These ways account for the already significant role of OER and their further potential to support learning in different contexts.

Key findings are presented as ten points stated in bold supported by discussions leading to conclusions. The points are numbered consecutively and signposted to distinguish them from other statements and conclusions in the thesis, e.g. the first key finding in response to main question B is labelled/ abbreviated as KFB1. The statements are based on the evidence gathered in this thesis, hence applicable to at least one of the OER examined and potentially true and relevant to other OER with similar features, used in similar contexts or by similar users. The key findings established in response to main question B are:

KFB1) OER support inclusion: providing OER openly - without having to register or enrol - and free-of-charge in different formats suitable for ODL and mobile learning contributes to widening access to learning with resources provided by higher education institutions.

Open and free access is, in line with the first official definition (UNESCO, 2002) a key defining characteristic of OER that, I believe, also constitutes their main advantage. This is because, by there not being barriers to accessing learning in the forms of entry requirements, those from disadvantaged groups, who might not be able to study otherwise, e.g. early school leavers (EU, 2010),

are given the opportunity to learn with quality university level materials without having to pass entry exams, pay for the learning, formally register, or go through assessment to finish learning.

Availability of content in certain formats, e.g. audio on WL, is valued especially by users with disabilities like dyslexia. For those housebound - because of their disabilities or because of duties of caring for elderly or sick relatives - the possibility of learning in an ODL mode with an OER accessed online from home, e.g. as suggested by evidence gathered in the OpenLearn case study, is of key importance. It simply makes it possible for them to learn, often being the only option of accessing and pursuing learning.

The fact that OER can be accessed, downloaded, printed or replayed means choices to learn flexibly and conveniently, e.g. listen to OpenSpires podcasts on the move. What experts believe mobile learning grants are 'better opportunities to acquire skills at one's own pace, with a degree of privacy that may be missing when using shared computer facilities [e.g. in a classroom context] or relying on equipment belonging to somebody else [which] is particularly important for women and girls.' (Kukulska-Hulme, 2010:4). The main advantage of OER available for mobile use, however, is simply more or better access to learning opportunities in the light of predictions: 'mobile devices will continue to penetrate all aspects of life and mobility will become one of the defining characteristics of increasing numbers of learners' (Kukulska-Hulme, 2010:9). Therefore making OER available for mobile use simply means 'learning materials [becoming] accessible to a larger audience...[and]...catering for

disadvantaged social groups for whom mobile learning presents an opportunity to improve their life chances' (Kukulska-Hulme, 2010:5). Although most participants included in the research used OER for learning at home or work or teaching at their institution, there was evidence to show that some OER, mainly OpenSpires and OpenStudy, are used in mobile learning.

Open access and free provision of OER in various formats equals removing obstacles to learning, promoting inclusion of individuals from across various life situations, especially those for whom access to traditional face-to-face learning could be difficult or impossible. In this sense OER help realize 'coherent and comprehensive lifelong learning strategies' (ESAE, 2007:23) as understood based on the European Commission's guidelines.

KFB2) OER in English help organisations producing them gain global exposure.

Because of being available online openly and freely users all over the world can use the materials of a given OER, irrespective of location, as long as they can access the OER online. Language might be a barrier to some as OER are provided in different languages. The initiatives looked at in this thesis are produced in English, Turkish and Polish. While the 'imperialism' of English-based OER and OCW has been the subject of criticism, their existence also helped in the creation of initiatives in other languages, e.g. METU OCW in Turkish (based on the English-language MIT OCW-like model) and CORE OCW in Chinese that was mirrored on METU OCW.

Arguably, such strong presence of English-language OER could also be viewed as an advantage to those wishing to learn the language or prepare for studying at an English-language institution as these are commonly thought to be regularly topping the charts of the world's best universities.

Participants involved in the case studies did not express criticisms in relation to the languages in which OER and OCW used by them were produced. A METU OCW expert acknowledged that translating some of the most popular METU courses into English is in the interest of the organization as it grants them much more global exposure.

KFB3) Provision of OER is linked to promoting ICT access and literacy while the use of ICTs in learning and teaching can be motivating for learners and educators.

ICT is almost always necessary to use OER as most OER are designed in ways suitable for ODL and mobile learning. Although in some contexts OER are distributed in print, e.g. the TESSA resources intended for sub-Saharan teacher training, the initiatives examined in this thesis proved to be used mainly through ICT as even to print resources it is necessary to first access the web and use the printer. In this way OER encourage the use of ICT and digital skills but that could also constitute a barrier to those who either have no access to ICTs or do not know how to use them. So there can be obstacles to using OER as far as ICT access and literacy is concerned but in relation to making it possible to use OER at all, other 'universal' obstacles, such as registration, examinations or fees,

are removed.

ODL and ICTs feature among two key approaches believed by UNESCO to be presenting 'opportunities to widen access to quality education, particularly when Open Educational Resources are readily shared by many countries and higher education institutions...[while]...the application of ICTs to teaching and learning has great potential to increase access, quality and success' (UNESCO, 2009:3).

The example of the Warsaw teacher using WL resources of the MPF is a great proof of how the incorporation of ICT in the traditional classroom context is valued by students. According to the teacher it increased their overall motivation for learning and engagement in the lessons, thus strengthening the quality of learning and teaching.

KFB4) OER empower users to direct and personalise their learning and promote diversity through providing variety as there are different types and levels of resources that can be used openly, flexibly and depending on the users' skills and needs.

This study has shown that users from various backgrounds and with different knowledge and interests value the openness and freeness of OER understood both as access to education free of charge and the freedom of using resources flexibly. These, combined with the availability of content from across subjects and levels, facilitate personalisation of learning depending on different

needs and levels of expertise. Users appreciate the variety of OER in relation to available tools, spaces, formats and materials from across subjects and levels, e.g. Philosophy for Beginners on OpenSpires or Advanced Topics in Bioinformatics on METU OCW.

In this sense OER emerge as spaces allowing users to self-direct and take responsibility for their learning. This is reminiscent of Knowles' (1973) claims on the importance of creating appropriate learning environments. Such learning environments would allow adult learners to become involved in learning as they liked it and as was appropriate for them with their needs and preferences related to the various educational roles, professional backgrounds, family duties, daily responsibilities, resources available and individual interests. Such provision of OER supports diversity, which is significant as:

‘The knowledge society needs diversity in higher education systems, with a range of institutions having a variety of mandates and addressing different types of learners’ (UNESCO, 2009:3).

Diversity among the users of OER could be transferred onto the formal higher education environment if these eventually decide to formally enrol. Such possibilities might be of particular value to help diversify university student population if there are no qualifications required to formally enrol as in The OU, UK.

Through the freedom of use granted to users OER let them pursue different

learning paths, explore different approaches to learning, experiment, expand their horizons without the constraints of formal evaluation or deadlines. Users always have a choice to learn something new with OER, making learning with OER dynamic. Learning with OER can be pursued with a more cognitive or socio-emotional focus, which allows users to learn through thinking and feeling, through learning independently and through participating in activities with others. Allowing individuals that freedom of use depending on their goals at different times is crucial as 'the content of learning, the way learning is accessed, and where it takes place may vary depending on the learner and their learning requirements' (ESAE, 2007:23). Abundance of resources available for flexible use supports users exposed to changes in personalization of learning, allowing them to tailor, select and adjust what and how they are learning, both formally and non-formally.

Diversity of content and features equals opportunities to develop various competences, especially learning skills like organizing one's learning, searching for information, helping others or digital literacy as both a prerequisite and something developed further through using different repositories and tools. These can be used across different roles in which individuals might find themselves, e.g. worker, learner or family member. In this way OER serve as spaces for 'acquiring and updating all kinds of abilities, interests, knowledge and qualifications' (ESAE, 2007:23) and elements of the universe of innovative learning opportunities.

KFB5) OER serve as another path of access and a gateway to higher education (HE), helping academics, departments and organizations realise the mission of spreading knowledge for the good of the society and allowing individuals insight into authentic learning and activities of higher education institutions and giving them options to pursue approaches to learning alternative to HE, while users value the unique character of individual OER.

Availability of various open OER functions as an approach alternative to formal education in which a learner has less control over what, when and how is used to support learning. In the formal learning context the existence of different OER is also of benefit as users can choose what, when and how they use as auxiliary resources or strategies to enrich and enhance their formal learning. Using OER means freedom from deadlines and openness understood as open-mindedness in approaching learning, rather than merely not having to enrol or pay for the learning. At the same time users see links to the sources of materials, e.g. what original METU courses METU OCW units were taken from or what lecture series of what department an OpenSpires podcast belongs to. Through highlighting to OER users possibilities of formally joining the organisations producing OER, e.g. the OU as the producer of OpenLearn, OER serve as a gateway to quality learning at higher education level.

Although in principle OER are provided for informal learning without the constraints of enrolment or the rewards of obtaining qualifications, OER consist mainly of material based on formal curriculum and courses of specific

universities. These links, especially to established institutions, are valued by OER users as the credibility of an organisation or the quality of resources provided can increase their trust in an OER and motivate them. Evidence shows that OER help prepare for formal HE. This includes not only those learners at the 'standard' stage and age at which most people go to university, but also those wanting to return to education at later stages in their lives, perhaps because they had to abandon it earlier. They can also support those wishing to start on their education once they are in a position to do so.

Educators using OER value availability of research-based resources. The findings on users' attitudes to the institutions providing OER across case studies show these as predominantly positive: of trust, association and respect. This contradicts the claims of Illeris (2006) on adult learners' ambivalent attitude towards educational institutions. It was established in this thesis that users who value the quality of materials provided or perceive them as relevant and well written continue learning with OER provided by the organization, developing a sense of familiarity and gradually developing an identity of a learner of a given OER community and organization.

What is provided within an OER, how and why is linked to the producing organisation's mission, profile, activities for the public good and campaigns run for specific purposes, e.g. admission podcasts as a significant tool helping in promoting wider/ more equal access to Oxford.

OpenSpires provided by the University of Oxford and OpenLearn provided by The Open University are two examples of how OER of two very different organizations can help them fulfil their missions. The aim of creating OpenSpires was to 'reflect the unique nature of the education offered by the collegiate University' (Mansell et al., 2010:5) that is the oldest English-language educational institution. OpenSpires is a tool helping Oxford University in realizing their outreach and equality of access mission, meant to educate and attract the 'able and talented' candidates especially those who might not have considered Oxford as a suitable environment for them.

OpenLearn, conversely, launched as 'an extension of the University's educational mission' (McAndrew et al., 2009:4) [of widening access, championing progress and social justice] in line with The OU's motto 'Learn and Live', is a continuation of The OU's original mission to help provide flexible paths to learning for those for whom it would otherwise be difficult or altogether impossible. OpenLearn's popularity influenced users' interests in The OU itself: 'OpenLearn was the fifth most popular reason that people ordered a prospectus over the year to April 2008, after course and pan-university advertising, word of mouth and online enquiries. Of these channels, OpenLearn was the most effective converter of enquiries to registrations' (McAndrew et al., 2009:9). Some OER thus fulfil the roles of prospectus materials and advertising platforms for universities, serving as 'taster' spaces for potential students. All OER examined turned out to be used by individuals preparing for formal university courses or already pursuing them.

OER also help individuals and departments within universities make world-

class knowledge universally accessible. As established in the OpenSpires study, making one's teaching available on OpenSpires is motivated not only altruistically but is viewed as an effective way of boosting one's academic profile. It can be of meaning for instance in the REF exercise where statistics and feedback from users downloading lectures could potentially be used as evidence of public impact. All this can potentially result in returns in the form of funding or strengthening the university's brand. METU OCW has contributed not only to making METU course content openly accessible but to increasing the profile and visibility of METU as a university on the global scene.

OpenSpires audience, in turn, value the authenticity of unedited content as an opportunity to experience a real Oxford tutorial, learn about the structure or level of lectures or how things might differ depending on the contributor. Providing content in such authentic form fulfils a 'demystifying' function, as a participant of the OpenSpires case study put it.

Some OER users are interested in specific things within specific OER linked to specific institutions, valuing their uniqueness, e.g. by whom and how a lecture or an academic podcasts is available - in a downloadable and replayable format - rather than for instance the presence of socio-collaborative tools.

Knowledge can be delivered through OER in various forms, e.g. as (part of) a course on OpenLearn, a digitalized book on WL, or a lab experiment simulation on METU OCW.

Sometimes the tools provided can be used outside of the OER context, e.g. knowledge mapping tool Compendium available freely on OpenLearn. Although users have a choice to draw from different OER evidence gathered shows their preference to stick to one initiative, with the exception of METU OCW in which case users also use MIT OCW. Both initiatives are produced within the model of structured courses which means that even if users do not use one OER they use initiatives produced within the same or similar OER model.

KFB6) OER are particularly valuable for teachers who play a key role in inspiring students, lecturers who can build their own courses from re-used OER and OCW resources, e.g. METU OCW, and educators who use OER to improve their own teaching and develop professionally.

Because OER can not only be used by learners but re-used by educators they play a significant role in enhancing teaching in different contexts. As the results of the OpenSpires and WL case studies have shown, OER support and enrich teaching in secondary schools, both classroom-based work and independent learning of pupils at home in relation to homework assignments. Educators use OER not only to prepare their sixth-form students content-wise but to motivate them before applying and interviews and encourage them to pursue their goals and dreams, as established in the OpenSpires case.

Educators also use OER to learn themselves and raise their qualifications, which leads to strengthening of the quality of their teaching and, as a result, helps

increase the quality of students' learning, as ascertained in the WL case. WL study results show that educators can develop their skills not merely through using the content provided there but through contributing to co-creating that content.

OER are also used by faculty members of other higher education institutions than the one producing the OER as established in the METU OCW study which shows that METU OCW open course provision supports the exchange and flow of ideas across institutions.

Through supporting teacher development OER help realise the EFA goals as the UNESCO 2009 World Conference on Higher Education stated:

'...(11) Higher education must scale up teacher education, both pre-service and in-service, with curricula that equip teachers to provide individuals with the knowledge and skills they need in the twenty-first century...(UNESCO, 2009:3).

KFB7) Within OER, some of which are more content-centred (described as OER 1.0) and some more socially focused (described as OER 2.0), depending on what features are available and how they are used, there is a trend towards OER 2.0 but to enhance learning around content rather than replace it.

An interesting division of OER, into OER 1.0 and 2.0, was suggested by

McAndrew (based on Kozinska et al., 2011). What characterises OER 1.0 is design to support structured learning, possibly no user registrations or/ and knowledge transfer with a focus on content, e.g. OCW or digital books. OER 2.0 often incorporate socio-collaborative features, e.g. discussion forums, learning groups and possibilities of creating user accounts or profiles, intended to support not only knowledge transfer but communication between users, interaction, collaboration, observation, problem-solving and more dynamic, activity-based learning.

If this classification were used in the thesis, OpenLearn and OpenStudy would be assigned to the OER 2.0 and OpenSpires, METU OCW and WL of the MPF to the OER 1.0 (even though there is a possibility of registering for a user account on WL). The WL case has shown that it is possible to use OER 1.0, designed to facilitate more cognitively-focused learning, in a '2.0 way' as seen on the example of the Warsaw-based secondary school teacher who used the repository's resources to facilitate group work between students in the classroom. Confirming the claims of Kreijns et al. (2003), based on which the mere availability of social interaction tools does not in itself guarantee interactions, what accounts for the '2.0' way is what the user does with the tools rather than just their availability.

In some cases socio-collaborative tools are provided within separate sites linked to an OER, giving users a more evidently signalled choice between studying a course independently, e.g. on MIT OCW, or connecting with others, e.g. within a relevant OpenStudy group linked to it.

The findings show that it is the content as knowledge that remains at the core of OER learning. Socio-collaborative tools fulfil an auxiliary role if a significant one.

KFB8) Socio-collaborative tools on OER, with the discussion forum as the most popular and valued one, help in learning and shaping attitudes and identities.

OER that provide social spaces or tools for collaboration make it possible for users to connect and work with others. This is especially important in the non-formal learning context of OER where there is no guidance, no formal assessment or qualification, allowing other learners to become sources of information and support. Interactions with others are particularly important at specific stages, e.g. upon trying to decide what course or university to study with formally or what subject to learn informally because of the opportunity to ask questions and read the opinions of other learners.

The most popular and valued tool to interact on the two OER 2.0 examined (OpenLearn and OpenStudy) turned out to be the discussion forum. It is simply the possibility of having a conversation with others through the forum that users value should they wish to ask questions, share ideas, or simply read, observe and reflect on what others are writing. Tools facilitating such actions can encourage users to get involved in dialogue, helping them open up to collaborative problem-solving, become more willing to share and receive feedback, (gradually) allowing oneself to be inspired by others, developing a sense of belonging to a community of learners and coping with potential

isolation of the ODL context.

In the context of globalization these are particularly important in helping individuals from different cultures shape attitudes of mutual understanding and respect, encouraging participation in one's community. UNESCO suggests a way of viewing globalization as 'a *multidimensional and multidirectional* process, evolving simultaneously within the economic, social, political, technological and cultural spheres. It is a complex and rapidly developing network of connections and interdependencies that operate within and between these spheres and exert increasing influence on material, social, economic and cultural life in today's world' (UNESCO, 2009b:14).

Providing socio-collaborative tools on OER is one way of supporting individuals in coping especially with the phenomenon of the 'flows' of people. Possibilities of registering and creating a profile on an OER allow users to find out who other learners are and what they are interested in. Learning journals allow individuals to express themselves and find out and relate to the problems of others and coping strategies applied, helping them to develop their learner identity and re-define their learning goals. Through providing socio-collaborative opportunities to gather learners, e.g. around learning groups, OER support community learning, allowing users to connect with others studying similar units, or what Ala-Mutka describes as:

'[learning in] ICT-enabled networks and communities...[meaning]...accessing individually and collaboratively-

created resources, sharing and developing knowledge with others, observing and following others, networking and socialising, sharing personal contributions, participating in collaborative production' (2010:32).

OpenLearn and OpenStudy could be perceived as fulfilling the role of learning communities understood as (connecting) groups of people interacting socially 'while striving to satisfy their own needs...[e.g.]...information exchange' (Preece, 2002:22). If interpreted using Greeno et al.'s (1996) claims, OER with socio-collaborative features, especially communication tools, function as 'educational innovations that have the goal of developing participation in social practices of inquiry and discourse' (Greeno et al., 1996:26).

Possibilities of participation and observation help users in what West (2006) refers to as defining and redefining one's identity related to having to cope with demographic demands, mobility of individuals and organizations, and other changes triggered by globalization. These can also be relevant to developing 'secondary identities', a term that Jarvis uses in relation to '[playing and identifying] with different roles' (2007:154) in 'the process of becoming members of different groupings that are part of our life-world' (2007:138).

Lastly, how an OER is produced and what ways of using it are encouraged, e.g. by teachers, is also significant. The absence of ready answers and essays on literary texts within WL implies that users should arrive at their own interpretations, as the interviewed teacher who used WL OER to teach and

encouraged her pupils to use it to learn independently observed. Such recommended use of WL would develop an attitude of working honestly among pupils rather than taking credit for the work of others.

KFB9) OER are used to support transitions, helping individuals of all ages cope with changes and pursue second chances, helping users prepare for the future, reconnect to the past and cope with the present, the ultimate motivation for and goal of using OER being self-actualization.

As evidence gathered proves, OER examined support learners during important transitions, e.g. from secondary school to university (observed on OpenSpires, WL and OpenStudy used to support learning with MIT OCW), and are used by individuals dealing with changes, e.g. becoming retired (observed on OpenLearn and OpenSpires). Sometimes educators use OER as tools and spaces to actively support their students. For example, OpenSpires are used by sixth-form teachers to encourage, inspire and boost their students' confidence before applying to Oxford or prepare for A-levels. WL are used to enrich classroom activities and introduced to encourage Polish sixth-formers to work with WL individually in preparation for their finals. OER are in this sense used with a focus on preparing for the future.

Among the users of some OER, e.g. OpenLearn, learning driven by changes in life circumstances emerged. Willingness to 'catch up' on learning among those who had previously missed out was also observed. Aside from the previously

discussed 'gateway to HE' element, the role of OER in supporting individuals who need and seek that second chance is key, helping them find meaning while dealing with critical transitions, re-assessing their life goals, situations and identities as:

'Lifelong learning is also about providing [*second chances*] to update basic skills and to offer learning opportunities at more advanced levels' (ESAE, 2007:23).

Some OER examined are particularly valued by those learning in later life, e.g. OpenSpires turned out to play an important role in supporting learning among older adults rather than just those still in formal education. As an interviewed lecturer noted:

'[At the Department of Continuing Education] all my students are middle aged roughly speaking, I get very few of 30s, 40s, but most of them are 50s, 60s, 70s...[and these would be the learners using OpenSpires content, too]'. (PL)

OpenLearn has also proven popular among those who wish to dedicate their time to learning after retiring. As 'adult education and training should give real opportunities to all adults to develop and update their key competences throughout life' (EU, 2010:5) OER have proven potential to support learning among older learners, which corresponds with the formal EU recommendations. Reconnecting with one's passions or people from the past also emerged as

something that OER support. For example, OpenSpires help Oxford alumni reconnect with their old departments, and both OpenLearn and OpenSpires help learners return to subjects that they had to abandon or put aside for various reasons, giving them a chance to return to learning what they love.

With regard to supporting one's current learning, the METU OCW case study showed that the OCW is used by formal METU students who upload their assignments, access reading lists or view simulations. OpenLearn is used by those enrolled in formal OU courses to support and enhance their learning or in-between courses, whereas OpenSpires is used by Oxford students, e.g. to access a lecture that they had missed or to access slides for revision purposes.

The findings of the research confirmed what Lindeman (1926) concluded in the 1920s on adults being motivated to learn by changes - either anticipated or experienced - in their work and personal lives, driven by 'power, knowledge, freedom, enjoyment and creativity' (1926:202). The fact that studies conducted over eight decades after that claim was made confirm it triggers a reflection on what changes and what stays the same in human learning. The suggestion is that it might be the contexts and dynamics of people's learning worlds that change and are subject to changes, while the human nature element and being motivated as Lindeman put it by 'the one ultimate goal which is to grow, to become' (1926:202) have remained unchanged.

What this means for OER is that they should be created and provided in such a way as to help individuals strive for that 'self-actualization' (Maslow, 1970 in

Knowles, 1973). That should be pursued while being receptive to the contextual possibilities and differences across skills and abilities of various users, and lastly different purposes to which they might want to use OER at different times.

Overall the conclusions made based on the data gathered are in accord with Rogers' claim that even if one's learning is triggered by external factors or circumstances the 'sense of discovery, of reaching out, of grasping and comprehending, comes from within' (Rogers 1969:5 in Knowles 1973:9). Using the interpretation of the works of Rogers by Schunk et al. (2008 based on Rogers, 1963), the results confirmed the innate character of the actualizing tendency even if influenced externally.

KFB10) OER help promote the culture of learning and attitudes of valuing learning while learning with OER can be a means to achieve, transfer and transform and an end in itself as a meaningful and pleasant activity.

The findings of this thesis show there are users who simply like learning with OER. Among the participants of the study there were some in the learner and some in the educator roles who thought of using OER as enjoyable, interesting and valuable pursuits. Aside from being useful, intellectually challenging or important in terms of supporting transition or life-change related learning, OER can simply be fun, inspiring and interesting. Through the possibility of being used to support both formal and non-formal learning OER have the potential to help people achieve, realize their life plans, and to help

them enjoy learning even if there is no 'plan' or a specified desired outcome of a learning activity.

In this way OER make it possible for users to learn, enjoy and expand one's learning horizons. This contributes to the promotion of cultures of learning open to various approaches, based on the European Communities Lifelong Learning Strategy according to which 'lifelong learning is about....valuing all forms of learning...[which should be made]... more visible' (ESAE, 2007:23).

According to the same policy 'a comprehensive new approach both to the mutual recognition of qualifications, and to the identification, assessment and recognition of non-formal and informal learning are needed in order to enable people to have individual learning pathways suitable to their needs and interests' (ESAE, 2007:23).

OER are non-assessed learning environments but within the OER world there already are attempts at developing ways of recognizing things like for instance team work, e.g. on OpenStudy, or working through units, e.g. on OpenLearn, where evidence of one's learning activities can be printed. OER such as OpenLearn and OpenStudy provide opportunities for gaining qualitative formative feedback in the form of answers to one's questions, opinions on one's work and critical reflections even of oneself on one's own work.

OER have proven potential to shape people's attitudes to learning, helping individuals to become more emphatic and tolerant, and aware of what is going

on in the learning worlds of others. By promoting a culture of learning OER and the organizations providing OER encourage individuals to learn, helping some to change their attitudes and start believing that learning can make a difference and might be a meaningful and enjoyable activity in itself, and helping others with their personal growth, fulfilment and self-actualization.

Results show that individuals whose learning is characterised by readiness to learn (Knowles, 1973) value the autonomy of learning granted within OER spaces. OER can, arguably, further enhance shifts in values and attitudes to learning and one's own goals through allowing users to make independent learning choices. This can also be accomplished by making suggestions (simply by what is provided within OER) as to what users could or should use in their learning, whether it be learning content-wise or in relation to interactions with others.

Conclusions on key findings KFB1 - KFB10

One of the key reasons for selecting the topic of research related to lifelong learning was a belief in its value for the individual as well as the society, helping the former in pursuing self-actualization and the latter in addressing social, demographic and economic challenges. One of the main reasons for writing about OER was a belief in their potential to help promote wider and more equal access to learning through open and free provision.

The discussion conducted reaffirmed these beliefs as the findings showed that

providing various OER suitable for use in different formats and contexts freely and openly could result in inclusion in quality learning for all, encouraging and helping especially those marginalized and excluded.

The provision of OER examined, through promoting wider and more equal access to learning, contributes to realizing the social justice and cohesion goals of key international organizations, e.g. the UNESCO recommendations linked to the EFA goals (UNESCO, 2009; Kukulska-Hulme, 2010) and the recommendations based on the EU lifelong learning policy (ESAE, 2007). Following the recommendations of the UNESCO 2009 World Conference on Higher Education on the expansion of more equitable access to HE 'this effort [made over the past ten years to improve access and ensure equity] must continue [while]...in expanding access, higher education must pursue the goals of equity, relevance and quality simultaneously.' (UNESCO, 2009:3).

In relation to relevance and quality, OER examined proved to be used differently by users with various needs, preferences and goals, for different reasons suitable to their skills, life circumstances and resources available. OER thus play a crucial role in supporting learning not only among users of all life ages, lifelong, but also at various life stages, life-wide, their relevance consisting in suitability for open, free and flexible use by diverse individuals motivated differently. The variety of content and features within OER and the possibilities of choice and mixing and matching activities all result in opportunities for personalisation of learning, possibilities of interacting with others with/in OER 2.0, developing identities as learners, and valuing learning.

Fostering OER variety is thus crucial as it supports diversity and is valued by users.

OER should continue to be provided freely, openly and in different formats for flexible use supporting inclusive access, promoting openness to differences and freedom to experiment and develop individual learning ways. Socio-collaborative features should continue to be provided within some OER as they help in supporting learners and shaping attitudes in the context of globalization while users have a choice rather than an obligation to use them.

Producing OER and providing opportunities for teachers to both learn with them and contribute to their creation and use is a great way, as already mentioned, to 'scale up' (UNESCO, 2009:3) teacher development and should be fostered. Organisations should have a choice of translating their OER into English as this raises their global profile. For those not satisfied with the English-language domination on the OER arena the status quo could be an impulse to change something about it and perhaps produce more resources in other languages. Importantly, as OER provision is linked to promoting ICT access and literacy, OER production or distribution should be promoted especially in isolated or underdeveloped regions.

Because of what OER are, how flexibly they can be accessed, and how differently they can be used, their use can support learning in various forms and contexts: formal and non- or informal, classroom or home-based, independent and socio-collaborative, goal- and performance-oriented or learning-oriented, pursued as

leisure. Users have trust in OER due to their links to established educational institutions and quality of resources, and again the flexibility and possibilities of observation and connecting with others. Therefore OER are excellent in supporting learning related to preparation or coping with life transitions, helping individuals strive for self-growth.

The fact that OER support learning at various stages of formal education and non-formal and informal learning means that investing in them can yield returns along different educational avenues.

The different OER examined should continue to be provided via different models in the formats most valued and useful to their users rather than aiming for one universal model of OER as there is no one ideal.

The attractiveness of OER consists in their variety and the possibility of choice between unique repositories linked to different organisations depending on the roles and objectives of individual users. This allows users to organise their learning if they so desire and, importantly, gives them the option not to organize it should they be interested in learning freely. The variety and the choices available simply make the use of OER more interesting and democratic, being in the interest of both sides: the organization providing OER and the users who use it.

Serving as spaces for knowledge-gaining, skills-development and attitude-shaping, OER support learning of individuals in the society and of the society

consisting of individuals, the entities being interlinked and interdependent. The individual cannot exist without the society and the society cannot exist without the individual. Fostering the creation and use of OER should thus be promoted as an 'investment in human capital' (ESAE, 2007:23) constituting one of the key elements of the European Lifelong Learning strategy.

7. Critical reflections on the robustness of research design, methodology and significance of findings: recommendations and contribution

7.1. Strengths and issues

The methodological strength of this thesis consists in the fact that all the following steps were taken to ensure good research practice and the robustness of the study:

1. Rationale for its design was stated and justified using relevant theories.
2. Detailed accounts of what methods were chosen for what reasons at what stages and how they were applied were given to ensure transparency.
3. Issues encountered were stated and strategies used to address them described whereas what worked best was highlighted.
4. Representation and truth value were strived for and significance of findings was argued.
5. Reliability and validity were aimed at through a strategic approach to research and subjecting the data analysis process to peer cross-check.
6. Methods were chosen purposefully or as a result of reflexivity, described,

justified and triangulated.

7. Why a non-homogeneous case study approach was taken was stated alongside what constituted a case study, uniqueness, boundaries, context, and differences.
8. Issues encountered were used as opportunities to explore and experiment.
9. Frameworks were tested empirically and tables developed.
10. Research timelines and progress were stated.

Issues which emerged were:

- Time taken for participant access negotiations, e.g. the initial stage of just getting the OpenStudy team to agree for the research took several weeks, or waiting for participants to respond and scheduling interviews.
- Some of the initially shortlisted OER were not available for study, e.g. the Open Yale initiative as the project research leader did not agree to post an invitation on their Website explaining that at that point the group did not wish to approach their users with research participation requests and the only way feedback was gathered was through voluntary surveys.
- From the ethical angle, a possible data loss or security issues were reported to the HMRPC and Data Protection Officer following a suspected interception with digital assets stored in the same location as research data. Since there was no sensitive participant data stored on any of the

devices the Committee Chair advised to continue the research process.

- No tools like Cohere or NVivo were used to enhance data analysis. Although explored and considered it was simply more straightforward for me use Word to code data and make handwritten notes on paper during interviews. Perhaps it was due to habit and routine, perhaps personal preferences.
- Different amount of data was gathered directly from participants in different case studies, e.g. eighteen users of OpenLearn versus six users of OpenStudy, because of differences in response rates. The response to the OpenLearn study invitation was the highest. A few individuals replied negatively to the OpenLearn and OpenStudy invitations explaining they were too busy or did not believe they could make a contribution. Whenever there was no response it was, obviously, not possible to find out why. One could only speculate on why the response rate to the OpenLearn study was the highest. As mentioned, a possible reason could be that myself as a researcher came from the same institution as the one providing the OER (The OU) which might have made users feel that their participation is more relevant, might contribute to really improving the OER they are using, or maybe they had more trust in or were more familiar with the research and learning environment.
- Because of the evolving nature of the field some observations, e.g. on the lack of user accounts on WL, have subsequently changed even before the

thesis was completed.

7.2. Research recommendations

These strategies and approaches worked best thus the statements below might serve as recommendations to those conducting similar research:

- What was found to be particularly useful was making notes and drafting initial interpretations immediately after interviews conducted. Processing things while the actual conversation with a participant was recent turned out to have worked best. The attempt was – having established that – to transcribe things right away or as soon as possible after interviews rather than leave interviews waiting until more than one can be transcribed in one go.
- The interview as the main method proved suitable for gaining understanding of the participants' perspectives because of prompting and probing possibilities. The semi-structured format allowed for guided search for answers to questions while granting the interviewees space to direct the interview naturally towards what mattered for them that might not had been anticipated in the interview guide.
- The thematic analysis of virtual output proved efficient in spotting trends

and emerging 'stories' (Preece et al. 2002), being only weakened by the impossibility of quoting participants for ethical reasons and such quotes would have served as stronger examples than the descriptive ones. Output collection is also efficient, allowing for plenty of data to be gathered in little time with relatively low effort, compared to interviews that are time-consuming to schedule, conduct and process. Its flaw compared to the interview is lack of 'depth' and possibilities of asking questions immediately if anything is unclear or confirming issues that seem to emerge. Output was valuable not only because of individual posts but the possibility of seeing group dynamics among users communicating over time, e.g. on OpenLearn where dates and times of posts or creation of clubs are displayed. Alevizou et al. (2010) believe observing activities and output of groups of OER users helps spot 'dominant themes in discussions and activities...[and]...patterns of interaction and behaviour' (2010:5). The advantage of collecting virtual output – and so indirectly observing users' activities - consisted in its lack of interview bias as the output examined had not been produced directly for research purposes, hence possibly more objective data, as suggested by Preece et al. (2002) in discussing the advantages of indirect online observation. The users would, however, know that their posts be read by others, e.g. on discussion forums, except that they would have written to realise their own goals rather than respond to research.

- In some cases, where experts requested it, the interview's analysis and quotes to be used were sent to them with the purpose of accuracy

verification. Their minor corrections were taken note of. These checks are believed to have strengthened reliability of the conclusions drawn (Silverman, 1993) and helped verify validity understood as adequacy of techniques to issues explored (Blaxter et al., 2001).

- Having a 'core' OER and using it as a basis for all other cases allowed a particular research focus. All studies that followed the OpenLearn study were conducted based on similar scenarios. Some elements were simply adapted or changed, e.g. the order of answering the research questions, depending on the OER examined, participants involved and data gathered.
- On OER with socio-collaborative tools it was optimal to recruit users who had posted recently rather than recruit from those with interesting but older posts or profiles. When these were approached in the pilot study there was barely any response.
- Transcription of interviews was time consuming. Therefore, to be more efficient, some interviews were not transcribed verbatim in full but already described at the basic inferencing level. In support of that approach, Miles & Huberman (1994) argue that first-level inferencing starts during the listening to the interview and transcribing.
- Conducting interviews remotely proved efficient and made it possible to include users dispersed around the world.

- Focusing on two main questions worked well. Through the more specific, 'narrow' question on motivations and influences better understanding could be gained of the internal and external forces that drive learning throughout life among different users of various OER. Having established that, the 'broader' question on the role of OER could be addressed. In some cases, however, the 'role' question was answered more directly, e.g. in the METU OCW, due to the nature of participants involved. All research questions were adapted specifically to each OER case study context, e.g. questions on socio-collaborative learning were only asked where tools facilitating such learning were available. The detailed sub-questions were approached thoroughly, using examples and quotes, and based on these the answers to the main questions were built.
- Developing the argument in a semi-open way allowed for the data gathering process to be driven by the goal of answering the research questions without excluding the possibility of learning other things that might emerge.
- Where obstacles were encountered issues were turned into opportunities to explore, think and experiment. For example, the small number of OpenStudy interviewees was used to experiment with presenting learner profiles to address the sub-question on the role of context in learning. This proved an effective way of gaining insight into the learning landscape of each individual separately before making general observations. Such approach could not have been a practical

solution for instance in the OpenLearn study because of the higher number of interviewees – it would simply have taken too much space to describe the learning landscape of each participant.

- Coming from the same organization as the one producing OpenLearn meant more efficient communication with the OpenLearn team who were able to provide up-to-date lists of registered OpenLearn users' email addresses and locations at short notice. This allowed for a quick distribution of invitations.

7.3. Expectations confirmed vs. greatest surprises

The following observations were made in relation to what was expected and confirmed and what emerged as surprising:

- Highest response rate on OpenLearn was in line with initial expectations of the OpenLearn case study being most likely the 'biggest' due to its general popularity.
- As interesting as researching motivational issues was, the concept of motivation emerged as not less complex than expected. As Corbin and Strauss (2008) observe in relation to knowledge construction, 'events are the result of multiple factors coming together and interacting in complex and often unanticipated ways...[so]...there are no simple

explanations for things' (2008:8). If social reality can never be fully discovered in any ready state as it is constantly and continuously changing, can motivation be fully understood through research? Based on the experiences encountered during this research, the best researchers can do is think about the approach to participant sampling and gathering data carefully so that these align with the aims and focus of the research and questions asked. In this work different perspectives were examined and various factors taken into account, endeavouring to understand motivation as genuinely as possible. That is why it is believed that sufficient evidence was gathered and examined thoroughly enough to be able to make the claims made which apply to the specified OER examined.

7.4. Advantages of triangulation

Triangulation of methods and sources of evidence, applied as the main strategy to strengthen validity and reliability, resulted in using the interview, virtual output collection and observation to gather data. The triangulation applied not only strengthened the study but enriched the construction of findings through allowing insight into participants' own interpretations.

Aside from the interview and virtual output, direct observation was used. Direct participant observation was not originally planned. It was used as a result of taking a reflexive approach, as an alternative way of obtaining learner data

directly after a low response rate to the initial invitation to the WL study posted on the MPF website and getting access to participants through the school teacher recruited via the website. This showed the potential usefulness of educators as participants because of their possibilities of granting access to learners and their dual function – as those who educate others and keep learning themselves. The observation not only strengthened the research design helping to obtain data directly from learners but proved effective in coming to understand the learners. It helped to interpret the data better through experiencing a learning situation from their day-to-day educational lives that would not have been possible using any other method.

Methods were selected and triangulated strategically and sampling diversified to obtain balanced samples while remaining sensitive to contextual differences and feasibility, and remaining open to alternative approaches

Data was also triangulated in relation to the interviewee's role. For example, interviews were conducted with OpenSpires project team and contributing academics. The strategy proved useful in arriving at an understanding of the broader role of OER, allowing claims to be based on the various participants' perspectives.

The two methods of data analysis used – the Miles and Huberman framework (1994) and thematic analysis guidelines of Preece et al. (2002) – rest on similar principles. The framework, used mainly for interviews' analysis but also field notes, helped construct the meaning and findings.

7.5. Representation, reliability, validity

Whether or not generalisations should or could be made based on the findings of this thesis needs to be considered. Generalization was not its aim believing that a key characteristic of the learning-with-OER-phenomenon is how differently OER can be used by various users. However, achieving some degree of 'representation' as something similar to generalizability, relating to 'whether your findings are likely to have broader applicability beyond the focus of your study' (Blaxter et al. 2001:221), was the aim, hoping at the results' relevance to users of a particular OER or other OER used by them in similar ways to the OER examined. It is possible that if the participants had used a different OER at the time of interviews the claims might have been similar because of the same user motivations and offline situations. The intention of each case study was the representativeness of claims (Stake, 1995) of the specific context in which they were arrived at. Their findings are thus applicable to the OER included. Truthfulness was strived for through understanding the OER learners' worlds and describing them in detail giving examples and quotes, enabling readers to get a feel for the OER users' situations. In this way findings could be used to help understand other cases involving participants in similar circumstances or OER with similar features, thus making the findings of this case study applicable beyond the focus of this thesis.

Reliability was strived for through a detailed examination of interview notes and transcripts, endeavouring to choose as suitable quotes as possible to

support the claims made. The attempt was to remain objective while acknowledging that the researcher's own expectations, intentions and beliefs could have influenced the findings since they had influenced the decisions on the focus of the thesis. Transcripts, interview notes, field notes and printouts of user activities were used as evidence, their purpose – following Yin's (2003) suggestion – being to serve to find the answers to the research questions.

Blaxter et al. suggest verifying with another researcher if they would have interpreted the data in the same way as one technique of checking reliability which '[concept relates to] how well you have carried out your research project' (2001:221). However, as Shank & Brown notice (2007), it is possible for different researchers to come up with different results simply because they notice different themes in data, not because one of them might be right and another wrong. Conversely, (perceptions) of social worlds are constructed by individuals (Bryman, 2004) and so phenomena can be interpreted differently.

To verify how another researcher interpreted the evidence gathered using the Miles & Huberman qualitative data analysis framework (1994) and what conclusions they would reach, two interview transcripts and notes produced in the OpenSpines study, research questions and findings produced were handed over to a fellow PhD student for review purposes. Interestingly, although the colleague concluded nothing contradictory to the findings, she paid attention to different possibilities of arriving at answers. For example, the colleague observed that the main motivations question could be answered (more thoroughly?) with data gathered directly from those whose motivations were

researched - the learners - while the main question on the role of OER could be answered with data gathered from 'third' parties, e.g. educators or creators.

This observation, enhanced by discussions with academic supervisors, made me reflect on the discrepancies between the sources and amount of data gathered across all case studies, e.g. between METU OCW and OpenLearn, the latter being much stronger both in terms of number of interviews and who the data on motivations was gathered from: learners. The omission of the (answering of the) motivation question in the case studies in which learners were not recruited was thus contemplated but eventually not implemented, believing that motivation can also be evaluated based on verbalized observations and reflections of third parties (Schunk et al., 2008). The differences in participant types are clearly stated in each case study while acknowledging that findings could be different had learners been interviewed. The case studies in which learners were interviewed or observed (OpenLearn, OpenStudy, WL) are more in line with the epistemological and ontological beliefs upon which the design of this research project was based. The two case studies in which learners were not directly interviewed or observed (METU OCW, OpenSpires) were still included as their findings, especially in relation to the role of OER, enrich the discussion on and enhance the overview of the OER scene.

7.6. Non-homogeneous case study approach

The findings of this thesis were produced using a qualitative research

strategy and non-homogeneous mixed-method case study approach intended to 'illustrate' a phenomenon, to 'present an individual case' (Yin, 2003:15). The methodology section contains a detailed rationale for the choices, highlighting the difficulty of differentiating between the context and the phenomenon in researching OER as OER could be both. The boundaries of each case were defined around the OER examined and those using it mainly for learning. Understanding the context of OER use was crucial to depicting the uniqueness of each case, gaining empathy into users' situations and then distancing oneself from these as a researcher during the write-up.

Because of the complex and fluid character of the context (Stake, 1995) it was decided that some of its elements would be paid greater attention to: those considered significant based on previous research (Kozinska, 2009; Kozinska et al., 2011), e.g. resources available or location.

Exactly because drawing clear boundaries between the case and the context can be difficult because of their fluid character(s) the case study approach is perceived as strength of this study due to the importance given to the context that allowed for a more focused examination of interactions within an OER and its users. Such approach made it possible to examine each case separately rather than creating an immediate 'fusion' of all interview findings from among users of different OER into answers to research questions.

Although the intention was capturing uniqueness of OER rather than generalizing, similarities and differences across cases were noted and used in

making claims on the OER concerned.

Trends and themes were looked for purposefully believing that by discovering patterns researchers can come to know 'that things are related to each other in meaningful ways' (Shank & Brown, 2007:61). Drawing comparisons between cases – between the users of different OER, especially their motivations for learning with OER - is therefore believed to have enriched the research. The claims also served as a basis to discuss the potential of other - different and similar - OER not examined in this thesis.

The choices of OER for case studies were dictated not only by their interesting features and potential to recruit diverse users but simply feasibility. If design be understood as 'a logical plan for getting from here to there' (Yin, 2003:20) the intention was to follow the plan but where that was not possible the strategy was to opt for a route that, as an alternative, would be most efficient in arriving 'there', i.e. gathering evidence to use as a basis to construct the findings. Where potentially interesting OER were shortlisted, e.g. SmarHistory, but accessing participants was not possible when intended, a different OER was chosen, e.g. METU, because of straightforward access to expert participants, one of whom was an OLnet fellow.

Because the OER selected differ in terms of features and potential uses, the case studies conducted are not homogeneous in terms of methods, sources and routes of gathering evidence or accessing different types of participants. This could be viewed as a lack of consistency putting the study's validity in question

since answers to the research questions in each study were not arrived at in precisely the same ways. However, there was one main method used throughout the research – the semi-structured interview – based on which most answers were generated, even if the roles of the interviewees differed (e.g. learners vs. educators). Other methods could be branded auxiliary, significant in enhancing the meaning construction but would not have sufficed without the interviews previously having guided the research in a certain direction.

The non-homogeneous character relates, therefore, to the employment of different auxiliary methods and different types of participants across cases. The slight differences, e.g. recruiting candidates sometimes through direct e-mail invitations and sometimes through open invitations on OER websites, were results of conscious choices made with the intention of reaching out to diverse users based on what routes of access were possible. The overarching goal was to produce data to answer the questions in the time available, gaining insight into *different, varied and diverse* ways of learning, OER and users. The non-homogeneity was thus purposeful and in line with being open to variety.

7.7. Frameworks and theories tested empirically and classifications developed

Applying various theories and frameworks to help frame the questions, choose methods and interpret the findings is perceived as strength because the theories and frameworks were chosen carefully, taking into account the

research context, questions and participants' profiles.

A framework developed while working on the thesis was also tested in the thesis, i.e. the classification of motivations for socio-collaborative learning on OpenLearn developed in the pilot (based on other frameworks) was applied to analyse data and arrive at findings in the OpenStudy case study.

A further contribution of the thesis consists in empirically testing theoretically developed frameworks. For example, the Reader-to-Leader Framework of Preece and Shneiderman (2009), based on a review of HCI literature, was tested in the pilot and its key claims on factors encouraging and impeding online participation confirmed. Another example is the confirmation of some of the claims made by Ala-Mutka (2010) who used theories and research of others to make her claims on learning 2.0.

8. Thesis contribution: objectives met, the value of work done and further research

8.1. Objectives: research-based insight into OER in lifelong learning, exploration, innovation, uniqueness

As a researcher my objective was to conduct academic research to gain understanding into key issues from important areas - lifelong learning and OER - that are, as evidence shows, interlinked and increasingly important. In selecting the topic of learning with OER its 'newness' was important. As methods are tested and approaches explored the ambition was to contribute to the field. That objective was reached (see details in section 8.2) and the thesis was produced based on empirical studies in which traditional social scientific methods were applied in new and constantly evolving web-based learning environments. Participants from around the world, although displaying different specific educational situations and goals, through learning with OER emerged as part of the same phenomenon of free and open learning.

The process of research and pursuing an intellectual exercise was motivated by the researcher's enjoyment of discovering and experimenting simply for the value of learning, the meaning continuously searched for, and the value seen in

continuously searching for meaning, considering the possibility of learning both the greatest luxury and a basic human right. In this sense, producing this thesis on learning allowed the researcher as an individual to remain involved in a valued learning exercise and to promote the idea of open lifelong learning among individuals and organizations invited to participate in the study.

Research was conducted with the attitude advocated through this thesis on researching OER innovatively and obtaining useful data in an ethical manner. It is worth reflecting on whether the research would be conducted differently knowing what is known after having gone through the process. From the methodological angle this thesis shows that barriers encountered during research can be used to experiment with alternative approaches, for instance to participant sampling, gathering data, answering questions or presenting findings (see OpenStudy learner profiles in section 5.5.2). A strongly reflexive approach was adopted in this study.

One contribution of this work consists in both the regard given to the individual learner in the learning society and the consideration of a wider role of the phenomenon of learning with OER in that society consisting of different individuals. The consideration of the individual dimension was reflected in and accomplished by one of the two main methods of data collection used: the individual interview. This way, the findings were arrived at mainly based on the opinions of individual research participants. The consideration of the wider role of OER in the society was accomplished firstly through conducting a detailed review of relevant interdisciplinary (education, social sciences, HCI) literature.

Secondly, the contexts of use and production of OER were investigated from the perspectives of not only learners but educators and contributors.

The uniqueness of specific OER is showcased in this thesis through what each initiative provides for its users, while being sensitive to similarities across OER as well as differences. In this way the variety of OER initiatives could be shown along with different ways in which uniqueness can be manifested and researched.

8.2. Contribution to OLnet, knowledge production and OU mission

This thesis contributes to realising the objectives of the OLnet research initiative stated in the OLnet research proposal (2009). One of the objectives was to help in ‘gathering evidence [and] developing methodologies’ [in researching open educational resources] (OLnet, 2009:4). Trying to establish what techniques are good for what and where there were challenges, possibly helping those designing studies involving similar participants, problems or contexts is believed to contribute to the answering of the first sub-question of OLnet:

‘How can we improve the process of OER reuse/ design, delivery, evaluation and data analysis?’ (OLnet, 2009:5).

Work conducted towards producing this thesis resulted in two peer-reviewed conference papers. Documented reflections and published papers serve as part of the ‘collective evolving intelligence for the community’ (OLnet, 2009:5), contributing to the answering of the third sub-question of OLnet:

‘How can we build a socio-technical infrastructure to serve as a collective evolving intelligence for the community?’ (OLnet, 2009:5).

Publishing and participation in seminars also contributes to fulfilling one of the key suggestions made to academics in a recent report of the Commonwealth of Learning ‘Guidelines for Open Educational Resources (OER) in Higher Education’:

‘[that academics] promote OER through publishing about OER [as this] can help to increase the body of knowledge available on the subject, particularly if it is done via open publications, journals and other relevant vehicles. This might include articles sharing experiences on the use, reuse and repurposing of OER and encouraging students to participate in OER’ (COL, 2011b:11).

The thesis’ unique contribution to the field of OER consists in:

- Firstly, researching a particular choice of different OER produced in different countries and in different languages through investigating user motivations, contextual influences and the role that the OER play in supporting lifelong

learning among different users in a combination of contexts that had not been investigated and compared before;

- Secondly, applying traditional social scientific methods to conduct the research in dynamically evolving web-based OER.

Responses to the two main research questions of this thesis were presented separately in each case study and also summarised and discussed as key findings throughout chapter 6. Main question A posed in this thesis was:

A) What motivates and influences learning with OER among different users?

Section 6.2 presents the findings as key points established in response to that question (points KFA1 - KFA7, p. 352 - 370) and section 6.1 summarises the findings established in response to all sub-questions across case studies (p. 345 - 351). The key findings KFA1 – KFA7 are:

KFA1) Learning with OER is motivated by - interest in, enjoyment of, gaining knowledge and skills within an area towards - ‘self-actualization’ (Maslow, 1970), ‘growing and becoming’ (Lindeman, 1926), ‘personal growth and achieving wholeness’ (Schunk et al., 2008), ‘the actualizing tendency’ (Schunk et al., 2008), and ‘personal growth, autonomy, and freedom from control by external forces’ (Schunk et al., 2008:35 based on Rogers, 1963).

KFA2) Motivation is a dynamic, ‘multidimensional and multidirectional’ phenomenon while learning of individuals is driven by external and

internal factors that change subject to ‘forces’ acting upon individuals within their ‘life spaces’ (based on Lewin (in Knowles, 1973)): intrinsic and extrinsic factors, e.g. immediacy of application, relevance or belief in significance and context.

KFA3) Those using OER to support structured learning are mostly motivated to persevere in learning to achieve the goals linked to their formal learning whereas those learning with OER freely value freedom of choice and flexibility.

KFA4) Other people are a strong influence and can be the reason for one’s use of an OER – (possibilities of) communication, interactions, community, identity and peer support motivate learning with OER.

KFA5) Interactions are motivated by ‘internal’ beliefs and attitudes and ‘external’ contextual factors, e.g. time of year or online availability, visibility and ease of using tools.

KFA6) Two main types of motivations to interact were identified among examined OER’s participants: expertise-related (mainly on OpenStudy) and support-related motivations (mainly on OpenLearn).

KFA7) Socio-collaborative learning can happen around OER that do not provide socio-collaborative tools, e.g. with WL.

The following statements (in bold), summarise these findings:

Learning with OER is motivated differently as motivation is a dynamic, ‘multidimensional and multidirectional’ phenomenon while learning of individuals is driven by external and internal

factors that change subject to influences on individuals within their 'life spaces' (based on key findings KFA2 and KFA5);

The key motivators to use OER for learning are interest in, enjoyment of, and appreciation of learning, gaining knowledge and skills within a particular area, or interacting with other people through OER, all pursued while striving towards 'self-actualisation' (based on key finding KFA1);

The context plays a key role in influencing the use of OER, above all one's educational role: those using OER to support structured (formal) learning are motivated to persevere in learning to achieve the goals linked to their formal learning whereas those learning with OER freely value freedom of choice and flexibility. More specifically, two main types of motivations to interact were identified among examined OER participants: expertise-related and support-related motivations. Other people in one's environment, access to resources and one's preferences and attitudes are of further importance (based on key findings KFA2, KFA3, KFA4, KFA5, KFA6 and KFA7).

The key findings KFB1 - KFB10 presented (in bold) in section 6.3 (p. 374 - 394) as ten points established in response to the main research question B –

B) What role do OER play in supporting lifelong learning among different

users?

- are as follows:

KFB1) OER support inclusion: providing OER openly – without having to register or enrol - and free-of-charge in different formats suitable for ODL and mobile learning contributes to widening access to learning with resources provided by higher education institutions.

KFB2) OER in English help organisations producing them gain global exposure.

KFB3) Provision of OER is linked to promoting ICT access and literacy while the use of ICTs in learning and teaching can be motivating for learners and educators.

KFB4) OER empower users to direct and personalise their learning and promote diversity through providing variety as there are different types and levels of resources that can be used openly, flexibly and depending on the users' skills and needs.

KFB5) OER serve as another path of access and a gateway to higher education (HE), helping academics, departments and organizations realise the mission of spreading knowledge for the good of the society and allowing individuals insight into authentic learning and activities of higher education institutions and giving them options to pursue approaches to learning alternative to HE, while users value the unique character of individual OER.

KFB6) OER are particularly valuable for teachers who play a key role in inspiring students, lecturers who can build their own courses from re-used OER and OCW resources, e.g. METU OCW, and educators who use OER to improve their own teaching and develop professionally.

KFB7) Within OER, some of which are more content-centred (described as OER 1.0) and some more socially focused (described as OER 2.0), depending on what features are available and how they are used, there is a trend towards OER 2.0 but to enhance learning around content rather than replace it.

KFB8) Socio-collaborative tools on OER, with the discussion forum as the most popular and valued one, help in learning and shaping attitudes and identities.

KFB9) OER are used to support transitions, helping individuals of all ages cope with changes and pursue second chances, helping users prepare for the future, reconnect to the past and cope with the present, the ultimate motivation for and goal of using OER being self-actualization.

KFB10) OER help promote the culture of learning and attitudes of valuing learning while learning with OER can be a means to achieve, transfer and transform and an end in itself as a meaningful and pleasant activity.

Contextual factors, that were established in the thesis as significantly influencing how OER are used (e.g. key findings KFA2 – KFA4, p. 355 - 361), are also considered important by Ehlers and Conole (2010) who discuss Open Educational Practices (OEP). OEP are described as ‘a set of activities and support around the creation, use and repurposing of Open Educational Resources’ (Conole, 2010 in (Ehlers, U.-D., Conole, G., 2010:1)). Based on the initial findings of the OPAL project that aimed to ‘move beyond a focus on the development of ...OER to articulation of the associated ...OEP’ (Ehlers, U.-D., Conole, G., 2010:1), important in Open Educational Practices are also ‘mediating artefacts that can be used to create or support the use of OER [including] tools and resources...[and]...technologies...[and]...the contextual factors which impact on the creation, use or support of OER’ (Ehlers, U.-D., Conole, G., 2010:2). In order to understand the dimensions constituting OEP, a case study approach was used in the project, as in this thesis, except that the OPAL research was a large scale one, conducted by a team of researchers across different international contexts, including Europe (the UK, Ireland, Austria, Germany and Holland), North America and South America (Brazil).

As far as the issues of motivations for, influences on and approaches to learning are concerned, the design of the pilot study was informed by the OpenLearn Research Report (McAndrew et al., 2009), in particular section 4, in which learner types were investigated. In relation to the findings of the OpenLearn Research Report (McAndrew et al., 2009) the findings of the OpenLearn case study exposed the complexity of motivations for and influences on learning and interacting among different users registered on OpenLearn. It was ascertained

that the OpenLearn users included in the study are motivated and influenced by different combinations of online and offline, internal and external factors. The evidence shows that OpenLearn enables disadvantaged and otherwise excluded participants to access high quality learning materials (reflected in key finding KFB1: 'OER support inclusion: providing OER openly – without having to register or enrol - and free-of-charge in different formats suitable for ODL and mobile learning contributes to widening access to learning with resources provided by higher education institutions', p. 374 and 425). Participants value the flexibility and freedom of using OpenLearn combined with the abundance and variety of content (reflected in key finding KFB4: 'OER empower users to direct and personalise their learning and promote diversity through providing variety as there are different types and levels of resources that can be used openly, flexibly and depending on the users' skills and needs', p. 378 and 425). As in this study it was established that the same learner can use OER differently depending on their goals and external influences (e.g. key findings KFA2 , p. 355 and 422, KFA5, p. 364 and 423, and conclusions to key findings KFA1 – KFA7, p. 371), approaches to learning rather than learner types (as in the OpenLearn Research Report (McAndrew et al., 2009)) were discussed. As far as the methods are concerned, interviews and virtual output analysis were conducted in the thesis, whereas online questionnaires, data analytics and interviews were used in the report. Additionally, the scale of the research conducted for the purpose of producing the report was much larger. The interviewees were recruited from among over 2,000 OpenLearn users who had completed an online questionnaire sent out by the research team. In the thesis, on the other hand, international contexts were considered across the case studies in which a

few different OER were researched, including OpenStudy which provides spaces for discussion and tools for interaction. In particular the findings of that case study showed that OER users are motivated by intrinsic interest in a subject linked to plans and goals from within their formal educational roles (reflected in key findings KFA1, p. 352 and 422, and KFA3, p. 358 and 423). According to the results of the OpenLearn Research Report (McAndrew et al., 2009) there was interest in some form of assessment among the users of OpenLearn, e.g. in quizzes or tests. That was also observed among some participants of the OpenLearn case study. Additionally, the results of the OpenSpires, METU OCW and WL case studies show that there are OER users motivated and influenced by factors from their formal educational roles, including formal assessment and qualifications (key finding KFA3, p. 358 and 423).

In relation to the role of OER in supporting lifelong learning, Lane and McAndrew discuss the benefits of OER for the OU, e.g. 'extending the reach to new users and communities...recruitment of students from those who come to see OpenLearn...[and]...supporting widening participation' (2010:955). Their observations resemble those made in this thesis, e.g. on the diversity of OER users, users browsing OpenLearn before enrolling in OU courses or valuing the fact that they could not learn otherwise, had it not been for the openness and flexibility that OpenLearn facilitates (see p. 195 - 197 in 'Sub-question 4: What do users value most in learning with OpenLearn?' of section 5.4.3. Findings of the main study). That approach offers a different perspective on the role of OER – one focusing on the benefits for the providing organisation rather than users directly.

As discussed in detail in section 7.7, the findings of this thesis confirm the main claims of the Reader-to-Leader (RTL) Framework of Preece and Shneiderman (2009) on online and offline factors that encourage and impede online participation. The framework, developed based on a review of HCI literature, was tested empirically in this thesis. The framework was also used to investigate motivations for learning with OER independently. This is because some of the factors, e.g. (the level/ presence/ lack of) support and guidance on using new tools, were established to be affecting the use of OER in general, not just interactions (see key finding KFA2, p. 355 and 422, in relation to key findings KFA4, p. 361 and 423, KFA5, p. 364 and 423, and KFA6, p. 367 and 423, and supporting discussions in section 6.2, p. 355 - 370).

In terms of reviewing theories and research of others, this thesis also resembles the contribution of Ala-Mutka (2010) to research into learning 2.0 (a term used by Redecker et al. (2010)). Additionally, this thesis empirically tests some of the frameworks reviewed that had been developed theoretically, e.g. the aforementioned RTL framework (Preece and Shneiderman, 2009). While Preece and Shneiderman (2009) based their framework on HCI literature and Ala-Mutka (2010) wrote about learning 2.0, their work was used in this thesis - as a piece of OER research - because of what OER are as online learning environments within which humans interact with technology and other humans. This highlights the interdisciplinary character of OER research and the need to remain open to influences from areas like HCI.

The findings of the thesis bring into the foreground the multidimensional and

dynamic nature of motivations for and influences on learning and interactions with OER (key finding KFA2, p. 355 and 422). In particular in terms of establishing that the various factors combining to influence participation online can change, the results confirm what Makriyannis and DeLiddo (2010) ascertained on the dimensions of interactions and 'shifts' in dynamics of interactions between users. The methodological approach to researching user interactions online in this thesis was also influenced by the research conducted by Makriyannis and De Liddo (2010). The differences are that Makriyannis and De Liddo investigated more online communities (50), not only OER linked to educational institutions or organisations, for a much shorter period of time (30 days).

What was confirmed in relation to specific theories reviewed in chapters 2 and 3 of this thesis, e.g. on the importance of context in learning, as previously ascertained by Vygotsky (1978), is discussed in detail in chapter 6 (in particular in comment to key findings KFA2 – KFA5, p. 355 - 364, e.g. the discussion on the role of context in formal learning in KFA3, p. 358 - 360). The interesting thing is the confirmation of such claims, or even older ones, e.g. of Knowles (1978) or Lindeman (1926) on interest and enjoyment as key drivers for learning (key findings KFA1, p. 352 and 422), and life changes as important factors influencing adult learners (linked to key finding KFB9, p. 391 and 426), in the context of learning with OER in the 21st century. Vygotsky's (1978) theories had previously been used by others in newer contexts, e.g. by Engeström (1987) or Pea (1993). The claims on the importance of context, peer interactions and communication for learning, that Vygotsky (1978) had made, have been

confirmed before. In this sense, the results of this study confirmed what was already known but the new contribution is the confirmation of that in relation to learning with OER in a combination of contexts in which the claims had not been verified before.

In relation to the ten key points established on the role of OER in supporting lifelong learning among different users (key findings KFB1 – KFB10, p. 374 - 394 and 425 - 426), similar observations have previously been made based on research or in policy documents. However, in this thesis the points are relevant specifically to OER and no research study or publication has established or verified all of these points based on one empirical study investigating such a combination of OER.

For example, UNESCO (2009) recognised that ‘the application of ICTs to teaching and learning has great potential to increase access, quality and success’ (UNESCO, 2009:3). In this thesis the value of using ICTs is brought into the foreground specifically as linked to the use of OER and as increasing the overall motivation of students for learning, in particular if such use is encouraged and supported by the teacher. This is reflected in key finding KFB3: ‘Provision of OER is linked to promoting ICT access and literacy while the use of ICTs in learning and teaching can be motivating for learners and educators’, p. 377 and 425. This also highlights the role of educators in promoting various ways in which OER can be used to support learning and the role of OER in supporting the teaching process (see the WL case study findings in section 5.8.2, p. 321 - 339, and key finding KFB6: ‘OER are particularly valuable for teachers who play

a key role in inspiring students, lecturers who can build their own courses from re-used OER and OCW resources, e.g. METU OCW, and educators who use OER to improve their own teaching and develop professionally', p. 385 and 426).

The point on OER in English helping organisations producing them gain global exposure (key finding KFB2, p. 376 and 425) relates to the observations of D'Antoni and Savage (2009:78) on the problem of domination of English-language OER initiatives produced in developed countries. The results of this thesis show that OER initiatives can be produced in two languages. For example, METU OCW courses are available in Turkish and in English, catering for the needs of Turkish students and educators but also promoting the OCW globally with considerable benefits for the institution producing it.

As stated in key finding KFB4, 'OER empower users to direct and personalise their learning and promote diversity through providing variety as there are different types and levels of resources that can be used openly, flexibly and depending on the users' skills and needs' (p. 378 and 425). In relation to that point, Kukulska-Hulme notices the benefits of using mobile and wireless technologies by learners, for example 'access to additional content such as podcasts or free learning materials' (2010:4). This study has shown that OER can be and are accessed from mobile devices, in particular OpenSpires that provides podcasts but also OpenStudy with study groups, which contributes to granting users (more) freedom to direct how they use the OER. This is also relevant to key finding KFB1: 'OER support inclusion: providing OER openly – without having to register or enrol - and free-of-charge in different formats

suitable for ODL and mobile learning contributes to widening access to learning with resources provided by higher education institutions' (p. 374 and 425).

As mentioned in specific case studies, the providers of OER are also involved in researching the impact or monitoring the use of these OER. For example, members of the Oxford University Computing Services (OUCS), some of whom were interviewed in this study, produced two research reports on OpenSpires (Mansell et al., 2010; Geng et al., 2011). Middle East Technical University (specifically the METU Instructional Technology Support Office) monitors the use of the METU OCW site. METU staff, interviewed for the purpose of this thesis, have discussed the socio-demographic and educational context of use of OER in Turkey (Kozinska et al., 2010). The OpenStudy team include a researcher who was interviewed in the case study. The initial findings of the OpenStudy case study were passed on to the interviewed co-founder with the intention of being considered to improve the service for its users. In Poland the Modern Poland Foundation and the Open Education Coalition are involved in promoting OER. The Open Education Coalition is actively promoting the use of OER, raising awareness about related issues, e.g. copyright, and campaigning, for example for the use of OER and free textbooks in Polish schools through their website <<http://koed.org.pl/>> (Koalicja Otwartej Edukacji, 2013). The Free Textbooks project (FNP, 2010) of the Modern Poland Foundation is particularly interesting and worth researching as its aim is the creation of a full curriculum for Polish schools under free licences. The initial findings of the case study on WL have been discussed with the president of the MPF and the findings of the thesis can be used to inform the activities of the foundation.

In the context of discussing the contribution of this thesis to the field of OER, it is worth mentioning other relevant work of the researchers involved in the production of the OpenLearn Research Report (McAndrew et al., 2009), belonging to OLnet, or conducting their research at the OU, UK. For example, in this thesis it was established that educators can encourage and support students to use OER to enhance their learning and that OER are used to support the teaching process and educators' professional development (e.g. key finding KFB6, p. 385 and 426). Therefore, other contexts in which research into OER used by educators is conducted and different parts of the world in which OER are produced, promoted and used by educators, are worth considering.

There is a number of interesting initiatives, e.g. TESSA (Teacher Education in Sub-Saharan Africa). Assessing the state of OER readiness in Africa, Ngimwa (2010), who completed her PhD on collaborative design of educational digital libraries for African HE (Ngimwa, 2009) at the OU, UK, has showcased TESSA as a key research and development initiative. The initiative aims to improve access to school based education and enhance the quality of training for teachers and teacher educators in Sub-Saharan Africa. TESSA offers OER for teachers that are accessible in four languages through the TESSA website <<http://www.tessafrica.net/>> (TESSA, 2013) and where course design guidance is also provided.

In relation to OER readiness in Africa, Ngimwa (2010) established that factors such as lack of awareness, resistance to OER from the West, and limited ICT skills are some of the main factors that prevent educators from using open

content and sharing their own content. The role of advocacy of OER and localisation of OER ('versioning for African context' (2010:35)) was stressed in the report. Commenting on the findings on general perception and usage of OER, Ngimwa (2010) observed that these were mostly positive, which was probably because the interviewees had been 'converted to the OER movement' (2010:11) - as already involved in the TESSA project. This highlights the key role of those on the educator side in promoting the use of OER among other educators. In this thesis, on the other hand, the contribution of educators to promoting OER was shown as consisting in their encouraging the students to use OER to support their learning (e.g. key finding KFB6, p. 385 and 426, or the WL case study findings in section 5.8.2, p. 321 - 339).

Wilson, who was involved in the OLnet project on the OU, UK side, has conducted research on the role of educators in supporting learning with OER (2008) and educators' perceptions of the use of discussion forums to support learning with OER (2011). OpenLearn units and forums were researched in both studies. The findings of the research on supported group learning in open forums showed the importance of direction and facilitation by teachers or 'convenors' (2008:441) that would help learners to start using OER to support formal learning and co-ordinate communication between learners within an open forum provided through the OER. The need to adapt optimal approaches supporting such use to different age groups is also suggested. Examining lecturers' perceptions on the use of communication tools to support learning with OER Wilson stated that 'the two HCI lecturers [who participated in the study] suggested the need to drive social interaction in open forums with

activity' (2011:5). The specificity of forums linked to OER courses consists in the fact that, as the lecturers observed, users were unlikely to return (to a given course-related forum) after completing their course (Wilson, 2011). This implies differences in the dynamics of interactions between learners of closed courses – who complete the course at the same time – and those learning with open courses – who are at liberty to take as long or as short as they wish. This is relevant to the findings of the OpenStudy case study, in which individuals were interested in communicating with those pursuing the same modules within the courses that a specific study group was linked to, because they wished to discuss the topics studied at more or less the same time(s) (see p. 243 - 245 for factors encouraging interactions on OpenStudy).

Both Ngimwa and Wilson, whose projects were supported by The William and Flora Hewlett Foundation, have, through their research, contributed to 'research[ing] and evaluat[ing] the impact of OER on teaching and learning...[and]...develop[ing] innovative OER models' (The William and Flora Hewlett Foundation, 2010). Their articles referenced in this thesis are openly available on the web, which promotes open access to research findings advocated by OLnet.

Inamorato dos Santos, another OLnet and OU, UK researcher, who also contributed to the OpenLearn Research Report (McAndrew et al., 2009), produced a research-based report assessing the state of education and OER in Brazil. The report was produced as part of an OER project aimed at promoting non-English language OER at the UNESCO Institute for Information

Technologies (UNESCO IITE, 1997-2013). Noticing that ‘the potential of OER to support the success of current and future actions in Brazilian education is immense’ (2011:72), one of the conclusions made by Inamorato dos Santos was ‘the need to increase teachers’ access to digital content in order to improve teaching quality and the use of ICTs in education’ (2011:71). The observations made in this thesis on the role of educators in using OER and ICTs to support teaching and learning (e.g. key findings KFB3, p. 377 and 425, and KFB6, p. 385 and 426) mirror the ones made by Inamorato dos Santos on the Brazilian context (2011). Conclusions drawn in this thesis on the great potential of OER to support educational activities in different contexts, e.g. in Poland or Turkey (based on the findings of case studies on METU OCW, p. 296 - 308, and WL, p. 321 - 339), also resemble the ones made by Inamorato dos Santos in relation to Brazil (2011). This implies the potential of OER, especially if used by educators, to support education globally.

Alevizou (2010), involved in the OLnet project on the OU, UK side, has studied the Peer 2 Peer University (P2PU) (P2PU, 2011). The researcher explored the phenomenon of peer learning and volunteer tutoring, evaluating the ways in which selected courses promote a participatory infrastructure. The P2PU is described as ‘a grassroots open education project that organizes learning outside of institutional walls and gives learners recognition for their achievements’ (P2PU, 2011). It can be understood as an OER or a MOOC (Massive Online Open Course). The mooc.ca (Downes, 2011) site, with information and news on MOOCs, contains a list of MOOC and open course providers on which there is both the MIT OpenCourseWare and the P2P

University. The findings of this thesis, specifically in relation to the OpenLearn and OpenStudy case studies, show that learners share feedback, reflect and exchange ideas. Such communication between learners fulfils the function of peer support, which compensates for the lack of formal guidance and resembles the concept of 'volunteer tutoring' discussed by Alevizou (2010).

The thesis was designed taking into account The Open University's research mission to bring together the innovative and established expertise in the areas of learning and teaching to facilitate change in education (the OU, 2008-2012). The research conducted contributes to realising that mission as among its objectives were both exploration of a new emerging phenomenon of learning around OER and facilitating and helping to direct further changes through the results of the research.

8.3. Key messages, the value of lifelong learning with OER and further research

Further research should continue as, in the words of John Daniel, one of the OER movement pioneers, 'Open Educational Resources have great transformative potential for education at all levels...[while]...awareness of OER is still very limited among educational decision and policy makers', as observed during the Cambridge OER 2012 conference (attended and noted verbatim by the author of this thesis). The evidence gathered in the thesis shows that there are considerable benefits to both using and producing OER despite the

problems. Still, not many – even in the educational world – are familiar with the concept of OER. Therefore OER should be promoted more efficiently within environments suitable to their format, e.g. iTunesU for audio material. What audiences could be targeted with the aim of promoting OER could itself constitute an area of further research. Possible things to consider could be how OER could be promoted in schools, libraries and learning centres.

Further research should be conducted into different OER with individuals recruited from diverse user groups as there are various different factors that continuously influence different users' learning, goals and attitudes (key finding KFA2, p. 355 and 422). Such factors might change people's learning approaches, or alter them slightly, or the motivations from within might influence the external factors: the principles of reciprocity apply between internal motivations and external factors. Therefore a key characteristic of OER research is the constant change due to the dynamic character of learning with OER. Research into motivational and contextual issues in learning and teaching with OER should continue because motivation was found out to be key in driving both non-formal and formal learning while the context was ascertained as strongly influencing motivation (e.g. key findings KFA2 and KFA3, p. 355, 358 and 422 - 423).

OER supporting learning in different contexts implies abundant possibilities of recruiting users in learner and educator roles. Insights gained in this thesis can serve as a basis for further research. Because of the variety of existing and potentially emerging OER there is still plenty to be researched. Group research

projects in which collaboration and exchange of ideas can be fostered appear of particular value to OER – because of different approaches and perspectives that can enrich the construction of findings.

OER research could inform the ‘stakeholders engaged with creating, using or supporting the use of OER...[e.g.]...the creators, users [teachers or learners], managers, policy makers...’ (Ehlers, U.-D., Conole, G., 2010:2) involved in Open Educational Practices. This thesis provides research-based knowledge that can help trigger discussion on and understand OEP, especially various contextual factors influencing the use of OER, the motivations of OER users and the role that OER play for those involved in creating and using OER.

Research conducted shows that OER contribute to the suggested realization of the Education for All (EFA) Goals (UNESCO, 2009) and the European Lifelong Learning Strategy (ESAE, 2007) by championing more equitable access to learning especially for the disadvantaged (based on key findings KFB1, KFB4 and KFB5, p. 374, 378 and 381 respectively and p. 425). OER are therefore of value not only to those individuals but to societies because of their social justice and second chances potential. OER creation and promotion is thus in the interest of governments who should support further research with the focus on equality as:

‘200 million young people who missed out on formal education when younger urgently need a second chance to learn basic literacy and numeracy so they can find decent work...[and]...not only is prioritizing

skills and education important for the fulfilment of the individual, skills are a wise investment. \$1 invested in skills and education pays back at least tenfold in economic growth' (UNESCO, 2012).

The value of learning lifelong and using OER is argued in the final discussions. Therefore this thesis fulfils a role in advocating the use and production of OER.

Observations of participants can help to improve the design of specific OER and help those deciding on their content and tools. In particular OER with socio-collaborative tools support independent learners through facilitating the exchange of ideas, formative feedback and peer problem solving. Thus consideration should be given to creating more 2.0 OER features and researching their impact. Opportunities to further diversify OER in terms of educational materials and tools, and also reaching out to different users, mean that OER have the potential to support learning at different levels and in different sectors of education: higher education, secondary education, further education, and perhaps also primary education.

Building from this thesis further research stages would be conducting interviews with users of more than one OER initiative. This could be a way of gaining insight into their own comparisons between what motivates and influences them in using different resources for different purposes.

Over ten years after the 2002 UNESCO Conference formulated an official definition of OER the movement is growing and various initiatives evolve as

people are using them. Variety of OER is key, as evidenced in this thesis, because it supports diversity and inclusion in learning, one of the key messages of this work being that there is no ideal OER model. The 'ideal' consists in facilitation of on-going open learning through (the existence of) various OER giving users freedom of choice and allowing learning not to end with compulsory education but continue lifelong and 'life-wide' (term used by West (2006:41)).

The main argument of this thesis arising from the research presented here is that OER have become important in supporting lifelong learning among different users because of what they are. As open and free learning environments OER can be used flexibly. This allows individuals with various skills, interests and in different circumstances decide if, what, where and how to use for learning and teaching, at different times, when they are motivated differently, and their use of OER is influenced by various external factors.

In this way the findings of this thesis show that OER serve as educational environments that facilitate the 'expansion of human learning', to use COL's term (2011:2). The expansion is necessary on a grand scale to help meet the Millennium Development Goals (MDGs) set by the United Nations in 2000. Finally, the expansion is significant if we remember - concluding with the quote that opens the thesis - that **'Education has intrinsic value and is key to enabling individuals to realise their full potential and achieve personal fulfilment in all aspects of their lives'** (Council of the European Union, 2009:2).

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10. Appendices

10.1. Participant Forms

University of Oxford OER (sample information and invitation sheet)

Milton Keynes, Month, Year

Dear Participant,

I am a research student at the Centre for Research in Education and Educational Technology at the Institute of Educational Technology of The Open University. I am currently conducting a study called '**Motivations for various ways of learning and teaching with Open Educational Resources (OER) – case studies of different OER initiatives and their role in supporting inclusive lifelong learning**'¹. The research focus of the main study is on investigating motivations for various ways of using different types of OER for learning and teaching in a few purposefully chosen contexts.

In this phase I am interested in motivations for learning among diverse users of OER provided by the University of Oxford and I would like to invite you to the interview phase expected to start in...

Interviews can be conducted telephonically, on Skype, or face to face; would be recorded and follow a semi-structured format, so some questions will be set in advance but other topics might emerge during the interview (hence their duration might vary but should be between 30-60 minutes).

All interview data will be anonymised, stored securely, used to produced my PhD thesis and

¹ Proposed thesis title at that time

destroyed upon the completion of the project. Results will be made available to you. Data can only be accessed by me and my supervisors for supervision purposes (supervisors named).

Feel free to ask any questions before you decide to participate. Should you wish so, please note that you may withdraw at any time with no consequences and your data will be destroyed if you wish. I would appreciate your participation and contribution to producing more knowledge about OER users, which might ultimately help create better services to all current and future OER participants. If you have any enquiries, please feel free to contact by e-mail me (e-mail given) or my principal supervisor (email given). This project has been reviewed and approved by The Open University Human Participants and Materials Research Ethics Committee.

Yours sincerely,

Researcher

Contact Details

***The student conducting this project receives a Charter Studentship
funded by the Open University and the William and Flora Hewlett Foundation***

Consent Form sample

[Information on: thesis title, student's name, surname, e-mail, department and university]

It is essential in order to process the data - collect, transcribe, analyse it and interpret the findings - that I have your permission to use it for the purpose of carrying out my research and to quote from the interviews anonymously. My interviews will be carried out using the phone or Skype (audio).

Please read the following and sign if you agree to participate in the study:

- I have read and understood the information about this study in Participant Information and Invitation Sheet and this Consent Form
- I am aware that I can withdraw, without any consequences, at any time by informing the researcher and request for my data to be destroyed
- I understand who will have access to the information provided by me and how it will be used
- I acknowledge that this project has been reviewed and approved by The Open University Human Participants and Materials Research Ethics Committee.
- I agree to participate in this study

Name of Participant:

Date:

Signature 1:

Name of Researcher:

Date:

Signature:

10.2. Interview guide example

Examples of topics, areas, questions intended to be covered during interviews with OpenLearn users (plus sub-questions):

- Introduction: ‘tell me a bit about yourself; ‘what do you do, your education, hobbies, location, availability of time for learning’,
- Start with OpenLearn and the OU: ‘when did you register, why, are you an OU student, since when?,
- More on OpenLearn: ‘what subjects, units do you learn with, is your profile visible? Member of clubs, writing on forums? How often, in what circumstances?’,
- Depending on what direction the interview is going: learning interests – more details, hobbies, community engagement, education history, structure of learning if any, is there any link to work, what locations, devices, interest in OU courses, e.g. work, home, move, etc.,
- Level of satisfaction with content and tools: ‘what is most useful, your favourite, what caused problems, what helped?’,
- Ever used LabSpace? Other OER? Other forums? Other resources, e.g. wikis, social networking; Keeping in touch with other users outside of OpenLearn?,
- (possibly) more details on forums/ other socio-collaborative tools, e.g. attention paid to content, who the user is, grammar on other’s posts?, ‘do you just write, respond, edit, reflect’? Posting some of your work? Asking for feedback?,

- Three best things/ criticisms of OpenLearn - ?, e.g. what tool most useful, purpose of using OpenLearn, etc.,
- Future plans –related to OpenLearn/ OU?,
- Other activities running (e.g. on the PC) while using OpenLearn?,
- On assessment/ guidance, e.g. ‘Would you prefer to have a tutor/ guide’?,
- Attitude to research: ‘Did you participate in the OpenLearn Research Report questionnaire?’ [none recalled taking part]
- Attitude(s) to others, e.g. drawing from their ideas?

Remembering about: Motivations, goals, reasons, plans, planning, approaches, short-term, long-term, 'lifeplan', attitudes to technology, time availability, personal growth, identity, skills, expertise, (not) remembering things learnt on OpenLearn, printing or learning online, role/presence of others, e.g. family, friends, sharing learning, etc.

10.3. Interview transcript example extracts:

Interview transcript extracts:

Interviewer [I]: [What is] your view on the main benefits (of Oxford making its content openly available) to the world?

Participant [P]: 'We get people saying 'I studied the subject in question twenty years ago but I have been doing something else now for a while...now that I am retired... I am able to return to it and see what's happened in the intervening years and get back into something that I enjoyed previously...'. I think it has – from the feedback we've got – demonstrable benefits in bringing people back to subjects which they may have left because they'd moved into other areas'. [...]
[...]

[I]: Is there any link between downloading and wanting to apply?

[P]: '...We know that the admission podcasts are popular and we know that even before we started any of this the admissions people were doing their own podcasts and having a great deal of success with them'. [...]

Sample transcript extract with descriptive notes

[...]

Interviewer [I]: What about the potential [of OpenSpires] to support organizational learning and training?

Participant [P]: ‘...Some people want to use it as examples of good language for language teaching and not specifically to do with the subject...I guess...something that’s generated by a reasonably well-known institution as a good example of the language you are trying to teach so it sort of makes sense for them to re-use that material...’

[Interviewer Note while transcribing [IN]: /19:37/: [P] thinking...not sure, mentioned enquiries about teaching of philosophy...]

[P]: ‘There may be plenty of other non-commercial re-use [going on] that we are simply not alerted to...What actually constitutes commercial re-use? For example, universities are not for profit organizations but many of their activities are commercial so at which point do you complain if you feel an institution is using your material in a way that you feel is commercial? [...]

Interview transcript extracts as components in data analysis:

'...We know that the admission podcasts are popular and we know that even before we started any of this the admissions people were doing their own podcasts and having a great deal of success with them'.

'We get people saying 'I studied the subject in question twenty years ago but I have been doing something else now for a while...now that I am retired... I am able to return to it and see what's happened in the intervening years and get back into something that I enjoyed previously...'. I think it has – from the feedback we've got – demonstrable benefits in bringing people back to subjects which they may have left because they'd moved into other areas'.

A basic, first-level description, inference of the previous quote:

'the interviewee said people (OpenSpires users) were saying that they were able to return to subjects they had studied years before after having done something else for a while; based on what the interviewee had said there was feedback to serve as evidence of user satisfaction with the fact that they could [my inference/ conclusion/ link: thanks to OpenSpires) return to a subject put aside'.